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Dimensions of Army Commissioned and Noncommissioned Officer Leadership

Alma G. Steinberg and Julia A. Leaman
U.S. Army Research Institute

February 1990



United States Army Research Institute
for the Behavioral and Social Sciences

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Technical Director**

**JON W. BLADES
COL, IN
Commanding**

Technical review by

William W. Haythorn
Laurel W. Oliver

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This paper identifies the dimensions of Army commissioned and noncommissioned officer leadership. Results are based on the responses of 10,978 commissioned and noncommissioned officers (NCOs) to the 560 leadership tasks in the Army Leader Requirements Task Analysis Survey. The survey was developed from over 200 interviews with Army leaders. Factor analyses were performed first for the officers and NCOs together and then for each group separately to determine the most meaningful solution. The two separate factor analyses were preferable because each accounted for more of the variance than did the combined factor analysis. In addition, the combined solution masked similarities and differences between officers and NCOs. Nine factors emerged for the officers, and ten factors for the NCOs. The two factor solutions are compared and the results are discussed in terms of existing literature on leadership dimensions and current Army doctrine.

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Technical Report 879

Dimensions of Army Commissioned and Noncommissioned Officer Leadership

Alma G. Steinberg and Julia A. Leaman
U.S. Army Research Institute

Leadership and Motivation Technical Area
Zita M. Simutis, Chief

Training Research Laboratory
Jack H. Hiller, Director

U.S. Army Research Institute for the Behavioral and Social Sciences
5001 Eisenhower Avenue, Alexandria, Virginia 22333-5600

Office, Deputy Chief of Staff for Personnel
Department of the Army

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FOREWORD

The Leadership and Motivation Technical Area of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) has been conducting research to provide an empirical basis for the Army's sequential and progressive leader development training program. This is the third in a series of reports that document the first Army occupational survey for leadership for commissioned and noncommissioned officers, Army-wide and across all branches. The first two reports present the methods developed to conduct a leadership occupational survey and the task-level results for commissioned and noncommissioned officers. This report presents the derivation of leadership dimensions for commissioned and noncommissioned officers. The results of this research will be used to design leadership training programs that accurately reflect the role requirements of leaders in the Army.

The two sponsors for this research were the Center for Army Leadership (CAL) and the U.S. Army Sergeants Major Academy (USASMA). The Letter of Agreement with CAL under which this research was accomplished became effective 2 November 1984 and was updated in 1987. The Letter of Agreement with USASMA, entitled "Support for NCO Leader Performance and Requirements Program," became effective 21 January 1986.

CAL and USASMA participated in all stages of this research. As members of the project steering committee, they were kept informed of progress, provided valuable input to the research, provided subject matter experts for the interviews on which this survey was based, and conducted the content validation to establish the final survey task list. In addition, they briefed the project to others (e.g., USASMA briefings to the Chief of Staff of the Army on 12 December 1986, the Sergeant Major of the Army on 16 December 1986, the Training and Doctrine Command (TRADOC) Commander on 11 February 1987, and the CAC Commander on 22 February 1987). Results of this research have been provided to the sponsors (e.g., 19 January 1989, 5 December 1989), as well as to other relevant Army groups (e.g., the Army Science Board, the TRADOC Analysis Command, the NCO Leader Development Special Task Force, the Chaplaincy Services Support Agency, TRADOC Civilian Training Directorate).



EDGAR M. JOHNSON
Technical Director

DIMENSIONS OF ARMY COMMISSIONED AND NONCOMMISSIONED OFFICER LEADERSHIP

EXECUTIVE SUMMARY

Requirement:

The Army has an extensive education and training system directed at enhancing commissioned and noncommissioned officer leadership skills and performance. The Army needs an empirical basis for delineating Army-wide leadership dimensions as a framework for ensuring that its leadership training programs are targeted to Army leadership requirements.

Procedure:

In order to determine the dimensions of Army leadership, the responses to a task analysis of the leadership portion of the job of Army commissioned and noncommissioned officers were analyzed. The task analysis instrument was developed from interviews with over 200 commissioned and noncommissioned officers and reviewed for clarity, accuracy, and completeness by the Center for Army Leadership and the U.S. Army Sergeants Major Academy. It was then administered to commissioned and noncommissioned officers across all branches. Respondents were asked to rate only those tasks they performed in their current duty assignment on a 7-point "Part of Position" scale. Responses to the task analysis instrument were received from 5,945 noncommissioned officers (sergeant through command sergeant major) and 5,033 commissioned officers (lieutenant through colonel).

Findings:

The dimensions of Army leadership were derived from a factor analysis of the responses to the task analysis. The results revealed that the dimensions of Army leadership overlap for commissioned and noncommissioned officers but are not identical. Five factors were common to both officers and NCOs: general leadership; training for combat; providing input for the direction of the larger organization; managing time and written information; and planning and conducting formal training. Four factors were unique to commissioned officers: individual guidance, counseling, and discipline; supervising civilians; training basic military skills; and working with other U.S. military services and services of other countries. Five factors were unique to NCOs: developing unit cohesion; coordinating with other people and

other units; general training, teaching, and developing; monitoring health, welfare, and safety; and establishing the direction of your unit/element.

Utilization of Findings:

The leader requirements research has resulted in the identification of Army leadership dimensions that will provide an empirical foundation for leadership training and evaluation for commissioned and noncommissioned officers.

DIMENSIONS OF ARMY COMMISSIONED AND NONCOMMISSIONED OFFICER
LEADERSHIP

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DIMENSIONS OF ARMY COMMISSIONED AND NONCOMMISSIONED OFFICER LEADERSHIP

INTRODUCTION

The Army is committed to developing leadership through education, training, and experience. It has an extensive multi-level education and training program directed at enhancing the leadership skills and performance of leaders. The Army needs a system that can provide an empirical basis for identifying leadership behavioral roles in order to ensure that leadership programs are targeted to leadership role requirements. It also needs to be able to develop a leadership framework that can be used as a tool for organizing leadership development, training, and assessment. The goals of this research were to develop and apply a system to identify behavioral role requirements both in terms of specific leadership behaviors and general functions or dimensions that could provide a framework for leadership.

Although there is no Army system to identify specific leadership behaviors, the Army identifies specific behaviors for the technical part of the job with the systematic approach of task analysis, performed by the Army Occupational Survey Program (AOSP). The task analysis approach has the advantages of identifying what people do, enabling comparisons Army-wide, and allowing for periodic updates. Task analysis is not being done for the leadership portion of the job partly because leadership is more difficult to approach systematically than technical areas. For technical task analyses, tasks are organized around pre-identified duty areas. For the leadership area, there are no agreed-upon set of duty areas or tasks. Leadership is typically treated as a very general concept and not broken down into specific behaviors.

Since there was a need for a systematic approach to leadership and since task analysis has so many advantages, it was decided to develop a task analysis approach for identifying specific leadership behaviors Army-wide and general dimensions of Army leadership. It was recognized that a major part of the effort would have to be the development of a set of Army leadership duty areas and tasks.

To obtain general functions or dimensions that could provide a framework for leadership, two approaches were used. The first was in terms of general functional areas that were developed in the process of creating the task analysis instrument and served as individual duty headings for the instrument. The second was in terms of factor analytic dimensions, based on responses to the instrument, which reflected co-performance of

tasks. Both of these approaches can be used to facilitate the integration of leadership development, training, and assessment.

The functional areas were developed to represent the major components of Army leadership and, as such, can be used to communicate what leadership consists of and to give structure within sequential and progressive leadership courses. The factor analytic dimensions reflect co-performance, that is, tasks within a given factor tend to be performed by the same group of people. Thus, the factors are, in effect, clusters of leadership tasks that are characteristic of particular groups. As such, the factors can be used to guide the development of leadership programs and to target them to the relevant groups.

This report is the third in a series of technical reports that document this first Army leadership task analysis for commissioned and noncommissioned officers (NCOs), Army-wide across all branches. The first and second reports present specific leadership behavioral results at the task level for officers and NCOs, respectively (Steinberg & Leaman, in press-a; Steinberg & Leaman, in press-b). These two reports present the development of the functional framework. The present paper also presents the development of the functional framework as part of the methodology, but the primary focus of this report is on the development of the factor analytic framework.

Methodological Approach

There are many different approaches that could have been used to derive leadership dimensions. After a review of the literature, it was decided to take a task analysis approach, guided by lessons learned from the literature and the intent to identify behavioral dimensions that would (a) be based on a consensus about leadership; (b) allow for rank, branch, and type of officer comparisons; (c) be based on empirical data rather than preconceived notions; and (d) apply Army-wide.

A. Selection of the Leadership Focus

One lesson learned from the literature is that there are many different views about the nature of leadership (see Figure 1). Bass (1981) has suggested that there may be almost as many definitions of leadership as there are people. Likewise, many different sets of leadership dimensions have been derived for the construct of leadership (Yukl, 1981). In order to assure Army consensus about the tasks that could be considered within the realm of leadership for the task list, it was necessary to have an agreed-upon definition of leadership. The Army's accepted doctrinal definition of leadership was used as a foundation from which to determine which behaviors are within the leadership domain and which are outside it. This approach of starting with a definition of a construct and then proceeding to the definition

Comments on the Leadership Construct

- (1) "While there have been many studies of leadership, the dimensions and definition of the concept remain unclear" (Pfeffer, 1977).
- (2) "Without doubt, leadership is one of the most studied and least understood constructs in organizational science" (Griffin, Skivington, Moorhead, 1987, p. 199).
- (3) "The concept of leadership remains largely elusive and enigmatic" (Meindl, Ehrlich, & Dukerich, 1985, p. 78).
- (4) "The phenomenon of leadership...is as theoretically elusive as it is empirically obvious" (Biggart & Hamilton, 1987, p.429).
- (5) "Always, it seems, the concept of leadership eludes us or turns up in another form to taunt us again with its slipperiness and complexity. So we have invented an endless proliferation of terms to deal with it...and still the concept is not sufficiently defined" (Bennis, 1959, p. 260).
- (6) "There is perhaps no area of study in organizational behavior which has more blind alleys and less critical knowledge than the area of leadership. Practitioners and researchers alike have groped for years with such questions as: What is leadership?...Yet after many years of investigation, it appears we have no ready, useful answers. (Salancik, Calder, Rowland, Leblebici, & Conway, 1975, p. 81).

Figure 1. Comments on the Leadership Construct

of a construct domain (and then the indicators or measures of it) is similar to the approach advocated by Binning and Barrett (1989) and Nunnally (1978; see Figure 2).

Another lesson learned from the literature is that it is important to distinguish between the leadership construct domain and the measures or indicators of the quality of leadership (Figure 2). Leadership dimensions in the literature consist of factors, roles, behaviors, skills, abilities, competencies, and/or styles. Dimensions that summarize characteristics that may be needed by good leaders such as skills, abilities, competencies, behavior, styles (e.g., Halpin & Winer, 1957; Fleishman, 1953; Stogdill, 1974; Bowers & Seashore, 1966; Boyatzis, 1980; House & Dessler, 1974; Bass & Valenzi, 1974) are indicators of the quality of leadership but are often treated as if they were part of the leadership construct itself. Dimensions that summarize the behavioral functions or roles of people in leadership positions (e.g., Katz & Kahn, 1978; Mintzberg, 1973; Krech and Crutchfield, 1948) are often confused with those that are indicators of the quality of leadership. In the present research, the focus is on developing behavioral dimensions for the leadership construct domain.

The leadership literature treats leadership either as one global construct or a number of less inclusive constructs (Nunnally, 1978). Those who view it as one global construct have tried to represent the entire leadership domain, either parsimoniously with few dimensions (e.g., Halpin & Winer, 1957; Katz & Kahn, 1978) or in more detail (e.g., Yukl & Nemerooff, 1979; Lawler, 1988). Either way the implication is that one set of leader dimensions is appropriate for any organizational setting. The advantage of this global perspective is that one set of leadership dimensions could provide a common basis for comparing results across studies (Yukl, 1981). The disadvantage of this perspective is that it assumes the existence of a common set of leadership dimensions and may mask differences that exist for different populations/organizational settings.

Those researchers who view the leadership construct as consisting of a number of less inclusive constructs (see Figure 3) have concentrated on only a portion of the leadership construct. For example, they have: (a) focused on a particular organizational setting (e.g., Army, business, civilian government), (b) selected only some levels of leadership within one or more organizations (e.g., first-line supervisory position of factory foreman, Prien, 1963), (c) concentrated on selected organizational functions (e.g., sales), or (d) limited the aspect of leadership addressed (e.g., only leaders' verbal behavior, Butler & Cureton, 1973). As a result, many different sets of dimensions are derived for different populations/organizational settings. That there should be different dimensions as a function of organizational setting makes sense when one considers

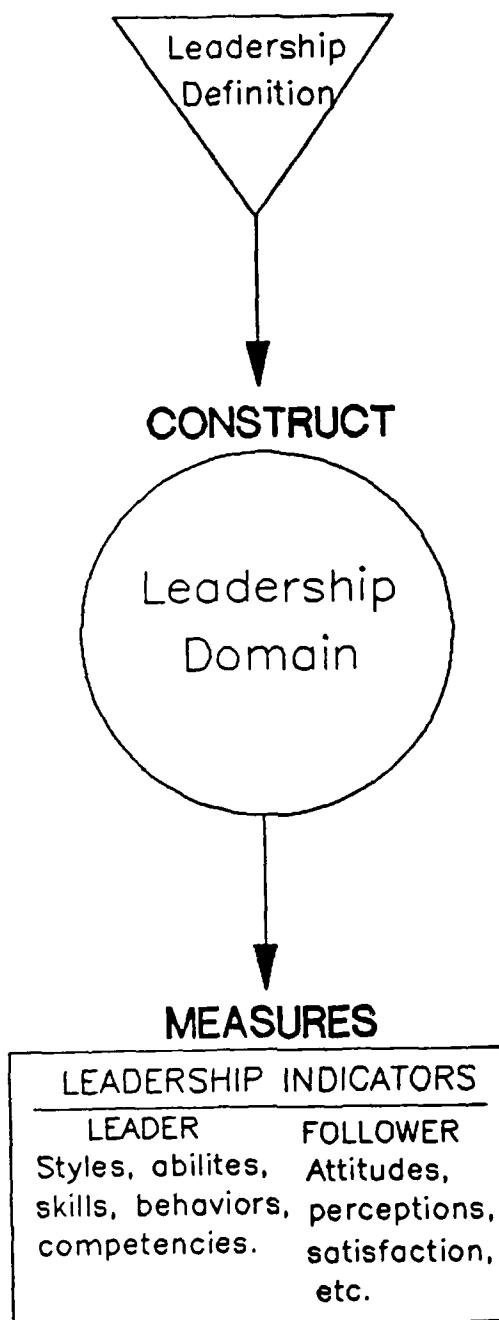
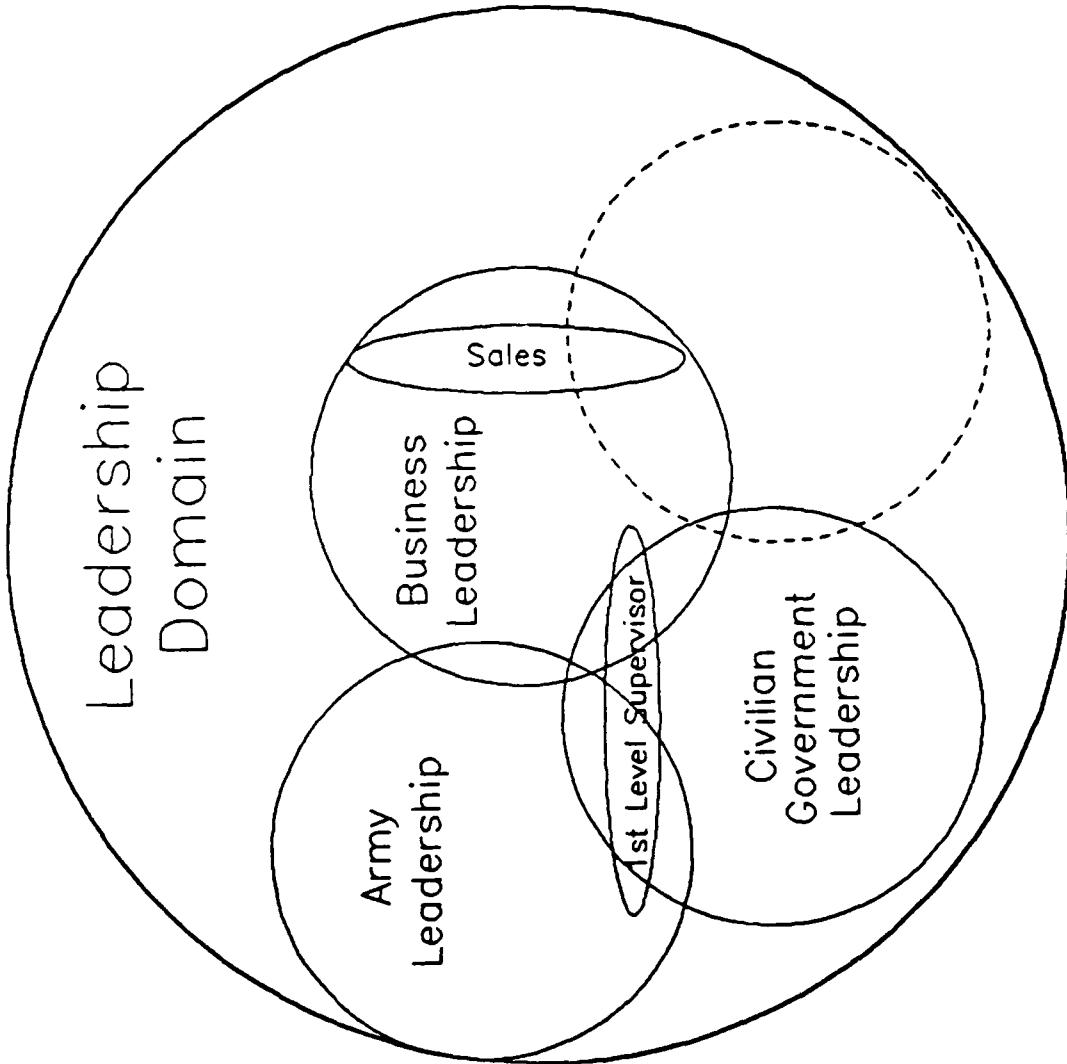


Figure 2. A Model of the Definition-Construct-Measures Sequence for Leadership

CONSTRUCT



NOTE: This is a hypothetical presentation; the degree of overlap between the smaller construct domains depicted here is only for illustration purposes and is not meant to represent the actual degree of overlap.

Figure 3. Leadership Construct Domain

that it is the structure of the organization that "institutionalizes the leadership process into a network of roles" (Smircich & Morgan, 1982, p. 260).

One advantage of viewing the leadership construct as consisting of a number of less inclusive constructs is that differences between various populations/organizational settings are not masked. Examples of some dimensions derived in business/industrial settings are: "Product, Marketing, and Financial Strategy Planning" and "Public and Customer Relations" (Tornow & Pinto, 1976); "Manufacturing Process Supervision" and "Union Management Relations" (Prien, 1963); and "Entrepreneur" (Mintzberg, 1973). These dimensions clearly would have limited applicability in a military organizational setting, for example. Likewise, dimensions such as "Combat Leadership" derived in a military setting (Helme, Willemin, & Grafton, 1971) would have limited applicability in business settings. Another advantage to this approach is that the resulting dimensions may more closely reflect the organizational setting and, therefore, be more applicable to the context of interest (Biggart & Hamilton, 1987). The disadvantage with viewing the leadership construct as consisting of a number of smaller constructs is that it leads to a picture of leadership with potentially as many different sets of leadership dimensions as there are populations/organizational settings and with no understanding of the relationships between them.

In this research, the intent was to develop leadership dimensions for one organizational setting, the U.S. Army, rather than for the entire leadership domain (see Figure 3). However, within the setting of the U.S. Army, the intent was to cover as much of the construct of Army leadership as possible and allow comparisons across ranks, branches, and type of officer. Therefore, in the development of the task analysis instrument and in the data collection itself, it was decided to sample from all officer and NCO ranks (except generals, for practical reasons), from all branches, and from as many locations as possible. In fact, data were collected Army-wide from over 10,000 leaders.

B. Selection of the Method for the Derivation of Dimensions

The literature clearly indicates that the methodology used impacts on the dimensions derived. Different methodologies result in a proliferation of different leadership dimensions. One method that has been used is the literature review and synthesis. Examples of literature syntheses are the Bowers and Seashore (1966) study which found four dimensions as the basic structure of leadership, and the Clement and Ayres (1976) study which conceptualized nine dimensions of leadership. These and other leadership literature syntheses are qualitative in that they rely heavily on human judgment, with no attempt at empirical quantification. Since typically there is no formalized

- methodology for synthesis across studies (such as there is in a meta-analysis), this method is greatly subject to the individual biases and preconceived notions of the researcher and likely to result in different individuals' arriving at different sets of leadership dimensions.

Other methods for deriving leadership dimensions typically have involved the development of a data collection instrument, the administration of the instrument, and the analyses of the responses to the instrument with some sort of data reduction technique. Limitations and biases can enter into the process at all three of these stages.

The most crucial area of weakness found in the leadership dimensions literature is in the actual development of the data collection instrument. This is also the stage that is most often ignored in the evaluation of the soundness and generalizability of the research findings. This stage is extremely critical because no matter to whom the instrument is administered or how the results are analyzed, the resulting findings can only reflect the items in the original data collection instrument.

Data collection instruments have been developed based on previous literature, theory, input from subject matter experts, interviews with incumbents, or observation (e.g., Helme, Willemin, & Grafton, 1971; Olmstead, Cleary, Lackey, & Salter, 1973). Some have been based on more than one of these methods. For example, Stogdill, Goode, and Day (1962) reported that in the development of the LBDQ-XII, items were written based on theoretical considerations and a survey of the literature. Yukl and Nemerooff (1979) reported that selection of their questionnaire content was based on the leader effectiveness model proposed by Yukl (1971), a review of research on managerial effectiveness, and an attempt to maintain some continuity with the mainstream of previous research on leader behavior typologies. Finally, Morse and Wagner (1978) reviewed the organizational behavior and management literature and utilized subject matter experts (six top-level executives in six different companies).

Overall, there is a heavy reliance on the reviews of previous literature in the development of data collection instruments. Unfortunately, this method is subject to the judgmental biases discussed above. As Karmel (1978) points out, "Given the chaotic state of the art in leadership research, it is appropriate to consider ways and means of evaluating dimensionality of the concept without relying on instruments contaminated (or attenuated) by unproven, *a priori* assumptions" (p. 479). Dowell and Wexley (1978) recognized this in their study which attempted to deal with several methodological issues in Prien's (1963) earlier work. They pointed out that Prien's items were primarily written according to a predetermined outline

of the major areas of the supervisor's job, and that "this procedure presents the possibility that the resulting factor structure to some degree represents the a priori classification scheme used to generate items" (p. 564).

Two methods of item development that rely less on a priori notions of leadership and more on knowledge of current job requirements are interviewing and observing. Both involve going directly to leaders or their subordinates. Although most researchers do go to leaders or their subordinates once a questionnaire or some other data collection instrument is developed, rarely do researchers go to leaders initially in order to define the scope of leadership behavior.

The populations sampled in the development of the data collection instrument as well as in its administration also impact on the resulting leadership dimensions. It is important to recognize this limitation in considering the generalizability of leadership dimensions. There is a definite danger in extending the application of leadership dimensions beyond the population actually sampled. In the military literature alone, there are leadership dimensions proposed based on responses of different types of leaders, such as Army lieutenants (Helme, Willemijn, & Grafton, 1971), Navy recruit company commanders (Weller & Blaiwes, 1976), and Army first sergeants, platoon sergeants, section chiefs, and squad leaders stationed in Europe (Hebein, Kaplan, Miller, Olmstead, & Sharon, 1984). One cannot necessarily assume that the leadership dimensions derived from these limited populations are equally applicable to all military leaders.

The last step is the analysis of the responses to the data collection instrument. By far, the most popular quantitative technique for deriving leadership dimensions is factor analysis. It is important to remember that, as with most other quantitative techniques, factor analysis is limited by the quality of the items on which it is based. Also, factor analysis is only appropriate when there is a high enough ratio of number of respondents to number of variables (i.e., number of items in the analysis). Although a minimum ratio of 5 to 1 is often recommended (Tabachnick & Fidell, 1989), many researchers have not followed this guideline (e.g., Dowell & Wexley, 1978; Morse & Wagner, 1978). Since factor analytical solutions are highly dependent on the decisions made by the researcher at each step, the decisions must be recorded in order to make replications or comparisons possible. Yet in a review of factor analytic research published in psychological journals over a 10-year period, it was found that in many cases, the write-up did not contain such important information as the factor model used and the decision rules for determining the number of factors (Ford, MacCallum, & Tait, 1986).

One other excellent quantitative technique that has been used to derive leader/manager dimensions but that does not rely on the quality of the items in the data collection instrument is multidimensional scaling (MDS). As Karmel and Egan (1976) reported, MDS enabled them to identify the underlying dimensionality of managerial performance without depending on preconceived schema and a priori assumptions. In their study, each subject rated a group of managers by rating all possible pairs of managers on the degree of similarity as a manager. As is typical with MDS, the subjects were not told the dimensions to consider when making their similarity ratings. Using the Karmel and Egan approach, however, the organizational scope is limited because the number of leaders/managers to be rated can be no more than any one ratee knows well enough to rate.

For this research, a typical empirical approach involving development of a data collection instrument, administration of the instrument, and analysis of the instrument, was followed. Because the development of the data collection instrument is one of the most crucial steps in this type of research, great care and time was taken at this step. The goal was to define the scope of Army leadership without relying on preconceived notions about the leadership concept. Thus, the task analysis instrument was developed from over 200 interviews conducted with Army leaders at all levels, at numerous locations, and across the entire Army organization. These interviews were conducted by simply asking the leaders what they do to get others to accomplish the mission (the doctrinal definition of leadership).

The data collection instrument consisted of behavioral task statements derived from the interviews. This task analysis approach has the advantage of focusing on what leadership is (the construct domain) rather than leadership skills, abilities, or effectiveness (the indicators or measures domain).

The data analysis technique used to derive the leadership dimensions was factor analysis. An attempt was made to overcome some of the limitations discussed previously by (a) basing the factor analysis on a carefully developed data collection instrument, (b) having a more than adequate sample size to meet the requirements for factor analysis, and (c) carefully reporting the decisions made at each step to increase the chances for accurate replicability.

METHOD

I. Instrument

The Leader Requirements Task Analysis Survey (Steinberg, 1987) was developed to obtain a systematic description of the leadership portion of the job of U.S. Army commissioned and noncommissioned officers. The following sections describe the:

(a) development of the survey instrument, (b) format used for the items, and (c) sections that comprised the entire survey.

A. Instrument Development

In order to develop the Leader requirements Task Analysis Survey, interviews were conducted with over 200 commissioned officers (second lieutenant through colonel) and noncommissioned officers (sergeant through command sergeant major). The interviews were conducted at a variety of locations, including Fort Hood, Fort Campbell, Fort Belvoir, Fort Carson, Fort Polk, Fort Bliss, Fort Lee, and Fort Eustis. For the most part, these were small-group interviews (usually with about 6 to a group, but sometimes as many as 15 or more), approximately 1 1/2 hours in length. Individual interviews were conducted at the colonel and command sergeant major level. There were two steps in the development of the final task list: the generation of the tasks and the review and integration of the tasks. These are described below.

Each interview session began with a brief introduction of the interviewers and their purpose. The leaders were told that they were being asked to help develop a survey instrument that would provide the Army with information about leader requirements. They were asked to describe what they, as leaders, do in their current duty assignment to "influence others to accomplish the mission." Those who were attending Army courses were asked to describe what they did in the previous leadership position they had held. In order to ensure that the entire domain of leadership was obtained for inclusion in the survey instrument and that the domain would include leadership tasks that might differentiate between levels or Army branches, the leaders also were asked what kinds of things they did to influence others to accomplish the mission that might be different from leaders who are: (a) higher and lower in rank, (b) in other Army branches, and (c) in other locations. For the same reasons, they were asked about any other things they felt they either should or would do in the future. Also, they were asked to comment on the relevance of some tasks derived from other sources such as leadership literature and doctrine, instruction manuals, and other task lists.

In order to create the task list, interviewee responses were written down by the interviewers in terms of task statements, that is, a verb, an object, and, if appropriate, a modifier (see Melching & Borcher, 1973). Sometimes the descriptions of leadership activities did not readily conform to this simple task statement format but could be narrowed down using selected words provided by the respondents. At other times, it was necessary to probe for words to complete the task statement. Probing was also necessary in a number of other instances. For example, sometimes probing was necessary to clarify the nature of the task, obtain

words that conveyed the essence of the task, ensure that the words used in the task statement were commonly understood terms, and to ensure that the tasks really followed from the definition of leadership.

The task inventory was both developed and reviewed in an iterative process over the course of the interviews. At the beginning of each session, the interviewees generated tasks, and then toward the end of each session the interviewees were asked to review tasks developed from earlier sessions. The task statements were reviewed for: (a) shared meanings of individual words across groups (e.g., words like "unit/element," "organization," and "subordinate"), and (b) shared interpretation of task statement meaning.

After many tasks were generated, the process of grouping the tasks was also begun. First, the researchers eliminated identical tasks and tentatively put tasks relating to similar topics together. Then, the interviewees reviewed the tasks developed from earlier sessions and eliminated or combined tasks that did not have the same words but meant essentially the same thing. However, similar tasks were not combined into one more general task when interviewees indicated that keeping the tasks separate would further the differentiation between Army levels and/or branches. Interviewees also reviewed the arrangement of tasks on the list to ensure that similar tasks were placed together.

After a number of interviewee groups had reviewed the arrangement of tasks on the list, the researchers divided the task list into smaller groups of tasks and created tentative individual duty headings to reflect the nature of the tasks within each group. Interviewees then reviewed and revised the duty headings and the placement of tasks within duties. In addition, to ensure that the duty headings reflected their intended meaning, several groups were given only the duty headings and asked to name tasks that they thought would be found under each one. The entire interview process was considered completed when groups did not have new tasks to add, there appeared to be a shared understanding of the tasks and duty headings, and the arrangement of the tasks within the list was agreed upon.

Finally, the completed task list was reviewed by the Army's proponents for leadership, the Center for Army Leadership (CAL) and the U. S. Army Sergeants Major Academy (USASMA). CAL and USASMA each selected a group of subject matter experts in a wide range of ranks and branches to review the tasks for clarity, accuracy, and completeness in covering the scope of Army leadership. The proposed revisions by CAL and USASMA were incorporated into one task inventory which was approved by both groups.

B. Task Format

The format of the task statements included in the instrument differs somewhat from that in a typical task analysis because leadership differs from the technical portion of the job in ways that make it hard to apply traditional task analysis procedures directly to it. Many leadership tasks are unobservable and overlapping with no definite beginning or end. The leadership tasks included in the task list did conform to typical task requirements of a verb, an object, and, if appropriate, a modifier (Melching & Borcher, 1973). They did not, however, always conform to two other typical requirements: observable behaviors and "a discrete unit of work performed by an individual [with] a definite beginning and ending...performed within a limited period of time" (Melching & Borcher, 1973, p. 3). Had the two latter criteria been strictly conformed to, critical Army leadership tasks such as the following would have been omitted: (a) motivate troops to close with the enemy; (b) demonstrate Army values; (c) coordinate with other U.S. military services; and, (d) monitor troop appearance. These statements were included in the task list because soldiers say they do them as part of "influencing others to accomplish the mission." Although they could be broken down further into task statements of observable behaviors with a clear beginning and end, the resulting task list would have been endless.

Headings for duty areas (i.e., groupings of tasks) were written in the same format as the task statements. This was done in order to reduce the ambiguity of headings that is typical in the leadership area. Thus, for example, instead of "communication" which is involved in most behavior, there were more specific headings such as "Maintain Two-way Information Exchange with Superiors," "Train Soldiers," and "Supervise Others."

C. Sections of the Instrument

The Leader Requirements Survey consisted of three parts. Part I contained background questions preprinted in the answer booklet. This section included questions such as rank, level of education (military and civilian), type of unit, and location. Part II contained the leadership task list. Finally, Part III contained knowledge, skills, and abilities (KSA) items, additional background items, and special interest questions (see Steinberg, 1987, for a complete description of the survey along with the survey itself). Note that the instructions, background questions, and other questions of interest, including the KSA items, also were developed and pretested during the iterative interview sessions described earlier.

There were two forms of the survey, one for commissioned officers and one for noncommissioned officers. Both forms were identical, except for some of the background questions, in order to facilitate comparisons. For a few of the background questions, the response alternatives differed (e.g., for rank or specialty area items). In other cases, the differences were a function of the preprinted, standard AOSP answer booklet.

The results presented in this paper focus on Part II of the survey, the leadership tasks. There were 560 leadership tasks in the survey. As discussed earlier, these tasks were grouped into 20 individual duty area headings (see Figure 4). As can be seen from Figure 4, the 20 individual duty areas can be further organized into global duty areas circumscribing the construct of Army leadership: (a) Train, Teach, and Develop, (b) Motivate, (c) Resource, and (d) Provide Direction. These four areas follow from the definition of Army leadership. In order to "influence others to accomplish the mission," one needs to: (1) train, teach, and develop them so that they can do what is necessary to accomplish the mission; (2) motivate them so that they will do what is required; (3) provide the resources for them to do it (e.g., time, people, money, equipment); and (4) provide direction so that they know what to do. These global duty areas and the individual duty areas within them form a functional framework for Army leadership.

II. Sample

Since the primary goal was to enable a comparison of ranks and branches, the sampling plan called for stratification of both commissioned and noncommissioned officers by rank (lieutenant through colonel for officers and sergeant through command sergeant major for NCOs) and by branch. Generals were not included in this research because of practical considerations. Likewise, this research focused on the Active Army only and did not include Army civilian, Reserve, or National Guard leaders.

The plan called for sampling from 150 people in each grade by branch cell. The number 150 was chosen because it resulted in the maximum number of surveys that was feasible to distribute. When there were fewer than 150 for a cell in the population, the entire cell population was targeted. In addition, the number 150 was chosen based on an expected response rate of 50% (i.e., at least 75 per cell was considered acceptable for analysis). The 50% response rate was expected because of previous experience with this type of survey by AOSP. A sample truly proportional to the population was ruled out due to the tremendous size of the Army and the large variety of officer and NCO jobs within it. The proportional approach would have required a sample much larger than resources would allow.

FUNCTIONAL FRAMEWORK OF LEADERSHIP FROM THE LEADER REQUIREMENTS SURVEY

A. TRAIN, TEACH, AND DEVELOP LEADERS	<u>Number of tasks</u>
A. Train soldiers.....	21
B. Teach soldiers.....	18
C. Develop leaders.....	21
D. Plan and conduct training.....	42
E. Train in the field to enter combat.....	44
	Total: 146
B. MOTIVATE	
F. Motivate others (the what).....	13
G. Motivate others (the how).....	42
H. Develop unit cohesion.....	52
I. Reward and discipline subordinates.....	30
J. Take care of soldiers.....	33
	Total: 170
C. RESOURCE	
K. Manage resources.....	40
D. PROVIDE DIRECTION	
L. Perform/supervise administrative functions.....	26
M. Coordinate with others outside the unit.....	20
N. Supervise others.....	20
O. Maintain 2-way information exchange with subordinates.....	21
P. Maintain 2-way information exchange with superiors..	17
Q. Monitor and evaluate performance.....	38
R. Conduct counseling.....	24
S. Establish direction of your unit/element.....	13
T. Provide input for the direction of the larger organization.....	25
	Total: 204
	Grand Total: 560

Figure 4. Leader Requirements Survey. Number of Tasks, by Global and Individual Duties

Within strata, the commissioned officers were selected randomly by the last digit of their social security numbers from the Officer Management File (OMF). Because installation distribution of the surveys was not an option for practical reasons, the surveys were mailed to the officers at their home addresses.

For noncommissioned officers, installation distribution was possible. Each installation was provided with instructions on distributing the surveys in accordance with the proportion of NCOs by grade and branch at its location. Since branches do not exist formally for the noncommissioned officers, branch clusters were established for the purposes of this research. These branch clusters were derived on the basis of military occupational specialties (MOS) of NCOs who attend the same school for the leadership portion of the advanced course.

A 50% response rate was achieved for the noncommissioned officers, but only a 34% response rate was achieved for the commissioned officers. This difference in response rate may have been partially a function of the two different distribution methods. The officer survey was distributed by direct mail, and follow-up would have been too costly and time-consuming. With the installation distribution for NCOs, AOSP was able to follow-up with the installations to ensure that surveys were returned. Thus, the total useable returns for the commissioned officers was 5,033. The total useable returns for the noncommissioned officers was 5,945. Table 1 contains the number of commissioned and noncommissioned officers comprising the final sample sizes by rank. Table 2 contains the samples by branch, and Table 3 contains the samples by location.

A comparison of rank, branch, location, and some other demographic variables for the returned responses versus the unreturned responses showed no indications of bias in the returned material. AOSP was instrumental during the NCO distribution process in making sure that there were no instances in which large segments of respondents did not return their surveys. One problem with the commissioned officers response rate was encountered. It was discovered that the 1st lieutenants and 2nd lieutenants are a difficult population to sample by mail since they moved and changed status often. Thus, the response rate for 1st and 2nd lieutenants was somewhat lower than expected. The responses of the 1st and 2nd lieutenants were compared and found to be very similar. Therefore, 1st and 2nd lieutenants were combined for data analysis. Note that lieutenants are often pooled in military research (e.g., Gilbert, 1975; Helme, Willemin, & Grafton, 1971).

III. Procedure

The Leader Requirements Task Analysis Survey was distributed between April 1987 and August 1987. The respondents were

Table 1

Number of Commissioned and Noncommissioned Officers Responding to
the Survey by Rank

Respondents to the Survey		
Rank	Number	%
Commissioned Officer		
Lieutenant	693	13.8
Captain	940	18.7
Major	1232	24.5
Lieutenant Colonel	1245	24.7
Colonel	<u>923</u>	<u>18.3</u>
Totals	5033	100.0
 Noncommissioned Officer		
Sergeant	1352	22.8
Staff Sergeant	1459	24.5
Platoon Sergeant/Sergeant First Class	1387	23.3
Master Sergeant/First Sergeant	1103	18.6
Sergeant Major/ Command Sergeant Major	<u>644</u>	<u>10.8</u>
Totals	5945	100.0

Table 2

Number of Commissioned and Noncommissioned Officers Responding to
the Survey by Branch

Branch	Officer		NCO	
	Number	%	Number	%
Infantry	248	4.9	356	6.1
Engineer	312	6.2	290	4.9
Field Artillery	223	4.4	354	6.0
Air Defense Artillery	169	3.3	257	4.4
Armor	214	4.3	299	5.1
Audio-Visual	-	-	149	2.5
Land Combat/Sys Maint	-	-	329	5.6
Signal	248	4.9	499	8.5
ADP/Finance/Personnel	337	6.7	578	9.8
Chemical	228	4.5	254	4.3
Ordnance	245	4.9	300	5.1
Transportation/Aircraft Main.	210	4.2	465	7.9
Chaplain	258	5.1	155	2.6
Quartermaster	280	5.6	330	5.6
Medical	249	4.9	362	6.2
Aviation	195	3.9	188	3.2
Military Police	251	5.0	348	5.9
Military Intelligence	280	5.6	274	4.7
Command Sergeant Major	-	-	95	1.6
ORSA/Faculty/Force Dev.	355	7.1	-	-
Research & Development	283	5.6	-	-
Judge Advocate General	261	5.2	-	-
Special Operations	186	3.7	-	-
Totals	5032 ^a	100.0	5882 ^b	100.0

Note. Cells containing dashes indicate that there is no corresponding branch for that group.

^a1 Commissioned Officer did not provide branch information.

^b63 Noncommissioned Officers did not provide branch information.

Table 3

Number of Commissioned and Noncommissioned Officers Responding to
the Survey by Location

Location	Officer		NCO	
	Number	%	Number	%
<u>CONUS</u>				
APG	49	1.0	0	0.0
Belvoir	57	1.1	4	0.1
Ben Harrison	35	0.7	9	0.2
Benning	55	1.1	56	1.0
Bliss	78	1.6	206	3.5
Bragg	160	3.2	200	3.4
Campbell	45	0.9	246	4.2
Carlisle Barracks	16	0.3	6	0.1
Carson	63	1.3	188	3.2
Devens	33	0.7	112	1.9
Dix	19	0.4	80	1.4
Eustis	51	1.0	93	1.6
Gordon	45	0.9	152	2.6
Hood	142	2.8	61	1.0
Huachuca	41	0.8	62	1.1
Hunter AAF	9	0.2	30	0.5
Irwin	16	0.3	39	0.7
Jackson	36	0.7	44	0.8
Knox	80	1.6	157	2.7
Leavenworth	137	2.7	29	0.5
Lee	43	0.9	50	0.9
Leonard Wood	32	0.6	189	3.2
Lewis	140	2.8	147	2.5
McClellan	62	1.2	131	2.2
McPherson	71	1.4	76	1.3
Meade	47	0.9	121	2.1
MILPERCEN	34	0.7	7	0.1
Monmouth	35	0.7	69	1.2
Monroe	45	0.9	13	0.2
Ord	69	1.4	1	0.0
Pentagon	342	6.8	55	0.9
Polk	57	1.1	124	2.1
Presidio of San Francisco	37	0.7	13	0.2
Riley	71	1.4	110	1.9

(table continues)

Table 3 (Continued)

Location	Officer		NCO	
	Number	%	Number	%
Rucker	59	1.2	76	1.3
Redstone Arsenal	49	1.0	168	2.9
Sam Houston	51	1.0	115	2.0
Sheridan	38	0.8	41	0.7
Sill	76	1.5	203	3.5
Stewart	25	0.5	132	2.3
West Point	36	0.7	11	0.2
Other CONUS	896	17.8	474	8.1
<u>Overseas</u>				
Alaska	43	0.9	60	1.0
Germany	909	18.1	1243	21.3
Hawaii	113	2.3	128	2.2
Italy	39	0.8	6	0.1
Japan	24	0.5	23	0.4
Korea	189	3.8	200	3.4
Middle East	22	0.4	0	0.0
Panama CZ	39	0.8	49	0.8
Turkey	24	0.5	5	0.1
Other Overseas	136	2.7	30	0.5
Total	5020 ^a	100.0	5844 ^b	100.0

^a13 Commissioned Officers did not provide location information.

^b101 Noncommissioned Officers did not provide location information.

requested to read all the tasks and decide which they did in their current duty assignment. They were instructed to rate only those tasks that they did in their current duty assignment. This instruction was repeated several times and was printed at the top of each page of task statements. Finally, they were instructed that if they did a task they were to rate it on the following scale:

1. Insignificant Part of the Job
2. Slightly Significant Part of the Job
3. Somewhat Significant Part of the Job
4. Moderately Significant Part of the Job
5. Quite Significant Part of the Job
6. Highly Significant Part of the Job
7. Extremely Significant Part of the Job

This scale was chosen instead of the typical "time spent" scale. AOSP has conducted extensive research on occupational scales and has found the "Significant Part of the Job" scale to be more meaningful for officers. Also, this scale is more suited to the leadership area with its many tasks that have no clear beginning and ending. NCOs were given the same scale in order to maintain comparability in the analyses.

One problem was encountered with respect to the 7-point scale in planning the analyses. The instructions require respondents to skip those tasks they do not perform, creating "missing" data. Typically in factor analysis, if cases have missing data, either the missing values are estimated or the cases are deleted (Tabachnick & Fidell, 1989). In this instance, however, the non-rated tasks cannot be considered "missing" data in the usual sense of "no information" provided. Non-rated tasks were meant to indicate nonperformance. In order to capture this information for the factor analysis, nonperformance was scored a zero, extending the rating scale to an 8-point scale for the analyses.

The time taken to complete the questionnaire by respondents is presented in Table 4. Most respondents took less than 2 hours. In general, the commissioned officers took less time to complete the questionnaire than noncommissioned officers.

Because there were so many variables (i.e., 560 tasks), it was necessary to screen them to determine whether all should be included in the factor analyses. Thus, prior to the analyses, each task was examined to determine if too few respondents reported performing it. It was found that all tasks were performed by more than 100 officers and 100 NCOs. Also, correlation matrices of the order 560 by 560 were derived for officers and NCOs together, officers only, and NCOs only to determine if the correlation matrices contained correlations greater than .30 as well as no correlations greater than .90 (Tabachnick & Fidell, 1989). It was found that the correlation matrices met these criteria. Finally, the Kaiser overall

Table 4

Time Taken to Complete Survey for Commissioned and
Noncommissioned Officers

Time	Officers	NCO
Under 2 Hours	73.6%	61.0%
2 to 3 Hours	18.0%	22.1%
More than 3 Hours	.8.4%	16.9%

measures of sampling adequacy were high (.993 to .995) indicating small partial correlations relative to the ordinary correlations (SAS Institute, 1985). Therefore, based on the high percentage performing and the intercorrelations, it was decided not to bias the conclusions by eliminating any tasks for the analyses.

RESULTS

Presented below are the results for the factor analysis. Readers interested in responses to particular task items are referred to two ARI technical reports, in press (Steinberg & Leaman, in press-a; Steinberg & Leaman, in press-b).

The Leader Requirements Task Analysis Survey responses to the 560 leadership tasks were factor analyzed first for the commissioned and noncommissioned officers together and then for them separately ($n=5033$ and $n=5945$, respectively) in order to determine which would be the most meaningful solution. In each case, the method used was principal axis factoring, with the squared multiple correlation in the diagonal (SAS Institute, 1985). Varimax rotation gave the best solution. The number of orthogonal factors was determined following commonly recommended criteria (Ford, MacCallum, & Tait, 1986):

- (1) Eigenvalues greater than 1.00
- (2) Breaks in the scree plot
- (3) Three or more tasks with weight greater than .40
- (4) Interpretability

For the factor analysis combining commissioned and noncommissioned officers, 39 factors had eigenvalues greater than 1.00. An examination of the scree plot indicated that many of the eigenvalues greater than 1.00 were in the scree area, and the breaks appeared to be at the eigenvalues greater than 3.00. In order to examine the factors with eigenvalues greater than 3.00, a varimax rotation was performed for 15 factors. Of the 15 factors, factors 1 through 10 and factor 13 had three or more tasks with weights greater than .40 and were interpretable. They accounted for 73.3% of the common variance.

For the commissioned officer factor analysis, 43 factors had eigenvalues greater than 1.00. Again, 15 factors were retained for the varimax rotation. Of the 15 factors, nine factors (factors 1 through 8 and factor 11) had three or more tasks with weights greater than .40 on one or more of the nine factors. All factors were interpretable. Of the 560 tasks, 415 had weights of .40 or greater. The nine factors accounted for 88.7 % of the common variance.

For the noncommissioned officer factor analysis, 41 factors had eigenvalues greater than 1.00, and 15 factors were retained for the varimax rotation. Of the 15 factors, 10 factors (factors

1 through 10) had three or more tasks with weights greater than .40. All were interpretable. Of the 560 tasks, 457 had weights of .40 or greater on one or more of the 10 factors. The 10 factors accounted for 91.8% of the common variance.

Based on these analyses, it was determined that the two separate factor analyses were preferable to the combined one since the separate solutions each accounted for more of the variance. Also, the combined solution had the disadvantage of masking similarities and differences between the factors for commissioned and noncommissioned officers.

The final set of factors for commissioned officers is presented in Table 5 and for noncommissioned officers in Table 6. All factors were named by examining the items with loadings greater than .40. Representative items for all the factors, except the first one, are presented in Tables 7, 8, and 9. The first factor, General Leadership, was so broad that it would have been misleading to select only a few tasks to represent it. A complete list of the items with loadings greater than .40 on each of the factors is presented in Appendices A through N.

All the factors are described in the sections below. The first section contains a description of the factors that are similar for commissioned and noncommissioned officers and the next sections contain descriptions of those that are specific to commissioned or noncommissioned officers. The degree of overlap for factors common to commissioned and noncommissioned officers is presented in Appendices A through E on an item by item basis.

I. Factors Common to Commissioned and Noncommissioned Officers

General Leadership (see Appendix A). This factor has the most tasks with weights greater than .40. There were 160 and 161 tasks for officers and NCOs, respectively. This factor was called "General Leadership" because it reflects many different topic areas. The tasks came from three of the four conceptual groupings on the task analysis instrument as follows: Motivation and Provide Direction for both officers and NCOs; Resource for NCOs; and Train, Teach, and Develop for officers. Of the 160 to 161 tasks for this factor, 102 were the same for officers and NCOs. Although there was a fair amount of overlap, there were distinct differences between General Leadership for the officers and NCOs. Some of the areas that were within separate factors for NCOs (e.g., developing cohesion, developing leaders, establishing the direction of the unit/element) were included in varying degrees in General Leadership for officers. Likewise, an area that was a separate factor for officers, individual guidance and counseling, was partially included in General Leadership for NCOs.

Training for Combat (see Appendix B). This factor reflects tasks involving training in the field for combat. It included

Table 5

Percent of Variance Accounted for by the Factors for Commissioned Officers

Commissioned Officer Factors	% Variance	Cumulative % Variance
1. General Leadership	26.7	26.7
2. Training for Combat	22.0	48.7
3. Individual Guidance, Counseling, and Discipline	15.1	63.8
4. Providing Input for the Direction of the Larger Organization	5.5	69.3
5. Managing Time and Written Information	5.5	74.3
6. Planning and Conducting Formal Training	5.0	79.3
7. Supervising Civilians	3.6	83.4
8. Training Basic Military Skills	2.9	86.3
9. Working with Other U.S. Military Services and Services of Other Countries	2.4	88.7

Table 6

Percent of Variance Accounted for by the Factors for
Noncommissioned Officers

Noncommissioned Officer Factors	% Variance	Cumulative % Variance
1. General Leadership	24.7	24.7
2. Training for Combat	15.6	40.3
3. Developing Unit Cohesion	11.2	51.5
4. Coordinating with Other People and Units	10.6	62.1
5. General Training, Teaching, and Development	8.2	70.3
6. Providing Input for the Direction of the Larger Organization	5.4	75.7
7. Managing Time and Written Information	5.3	81.0
8. Planning and Conducting Formal Training	4.5	85.5
9. Monitoring Health, Welfare, and Safety	3.8	89.3
10. Establishing the Direction of Your Unit/Element	2.5	91.8

Table 7

Representative Items for the Factors Common to Commissioned
and Noncommissioned Officers

FACTORS	OFFICER	NCO
TRAINING FOR COMBAT	Factor 2	Factor 2
Take charge of tactics in the field	.82	.75
Issue fragmentary orders	.81	.75
Direct tactical security in the field	.78	.76
Decide on courses of action for the battleplan	.76	.72
Train subordinates in realistic combat situations/exercises	.71	.61
PROVIDING INPUT FOR THE DIRECTION OF THE LARGER ORGANIZATION	Factor 4	Factor 6
Designate organizational relationships	.70	.75
Create the vision of the organization	.69	.71
Structure the organization	.68	.72
Determine philosophy of the organization	.68	.72
Provide general direction for organizational planning	.67	.66
MANAGING TIME AND WRITTEN INFORMATION	Factor 5	Factor 7
Write information papers	.59	.44
Supervise completion of reports	.52	.53
Write letters of instruction	.52	.49
Edit and proofread written materials	.52	.55
Conduct crisis management (put out fires)	.45	.48

(table continues)

Table 7 (Continued)

FACTORS	OFFICER	NCO
PLANNING AND CONDUCTING FORMAL TRAINING	Factor 6	Factor 8
Write lesson plans	.61	.57
Design training aids	.60	.58
Train people who are the same rank as you	.58	.54
Evaluate effectiveness of training	.55	.57
Plan training programs	.55	.58

Table 8

Representative Items for the Commissioned Officer Factors

FACTORS	OFFICERS
INDIVIDUAL GUIDANCE, COUNSELING, AND DISCIPLINE	Factor 3
Counsel soldiers on child abuse	.73
Counsel soldiers on drug abuse	.70
Counsel soldiers on finances	.66
Give verbal reprimand	.64
Advise spouses of soldiers	.64
SUPERVISING CIVILIANS	Factor 7
Write civilian performance appraisals	.65
Hire civilian personnel	.63
Counsel civilians on their performance	.61
Develop job descriptions for civilian personnel	.61
Approve requests for civilian personnel actions	.59
TRAINING BASIC MILITARY SKILLS	Factor 8
Teach enlisted soldiers proper wearing of the Army uniform	.49
Teach enlisted soldiers basic military skills	.44
Teach soldiers about wills and insurance	.42
Train soldiers for the skills required to pass SQTs	.41
Teach soldiers personal discipline	.41

(table continues)

Table 8 (Continued)

WORKING WITH OTHER U.S. MILITARY SERVICES AND SERVICES OF OTHER COUNTRIES	Factor 9
Coordinate activities with military services of other countries	.65
Recognize Allied country military codes/customs	.64
Advise higher-ranked leaders from other US/foreign services	.58
Coordinate supervision of Allied personnel with Allied military leader counterpart	.58
Perform duties of liaison with government of the country to which you are assigned	.56

Table 9

Representative Items for the Noncommissioned Officer Factors

FACTORS	NCOs
DEVELOPING UNIT COHESION	Factor 3
Monitor unit cohesion	.62
Develop bonds among families in the unit	.62
Set unit climate	.62
Assess the climate of the unit	.62
Encourage emphasis on unit symbols (e.g., emblems, customs, songs, motto)	.61
COORDINATING WITH OTHER PEOPLE AND OTHER UNITS	Factor 4
Perform duties of a community commander (OCONUS)	.74
Coordinate activities with military services of other countries	.62
Approve requests for civilian personnel actions	.61
Allocate funds to units	.60
Integrate different types of units into the mission	.52
GENERAL TRAINING, TEACHING, AND DEVELOPMENT	Factor 5
Teach soldiers problem solving	.62
Teach soldiers general decision-making strategies	.61
Train soldiers to handle stress	.60
Teach soldiers oral communication	.60
Develop counseling skills of subordinate leaders	.56

(table continues)

Table 9 (Continued)

FACTORS	NCOS
MONITORING HEALTH, WELFARE, AND SAFETY	Factor 9
Monitor maintenance in subordinate leaders' units	.46
Monitor quarters/barracks in subordinate leaders' units	.45
Monitor safety practices in subordinate leaders' units	.44
Conduct health and welfare inspection	.43
Determine whether a unit drug problem exists	.43
ESTABLISHING THE DIRECTION OF YOUR UNIT/ELEMENT	Factor 10
Establish long-term unit/element goals	.61
Establish short-term unit/element objectives	.61
Clarify standards for your unit/element	.61
Determine the critical tasks of the overall mission	.59
Identify alternative courses of action	.58

planning for battle, preparing the unit to move out, directing field communications and issuing orders, directing the testing and use of weapons, and carrying out tactical missions.

Providing Input for the Direction of the Larger Organization (see Appendix C). This factor reflects the leaders' involvement with the larger organization, of which their own unit is a part. It included determining the philosophy, values, goals, policies, and priorities of the organization; structuring the organization; designating organizational relationships; and integrating subsystems in the organization.

Managing Time and Written Information (see Appendix D). This factor reflects both time management (e.g., prioritizing problems and putting out fires) and producing written materials. The written materials included information papers, status reports, SOPs, letters of instruction, briefing materials, technical reports, and staff studies.

Planning and Conducting Formal Training (see Appendix E). The focus of this factor is on formal and classroom training, both planning for it and conducting it. The planning part involved designing training aids, writing lesson plans, developing training programs and coordinating training with other groups. The conducting part involved training a variety of individuals, including soldiers, officers, NCOs, other trainers, military personnel from other U.S. Services, and Allied military personnel.

II. Factors for Commissioned Officers

Individual Guidance, Counseling, and Discipline (see Appendix F). This factor reflects guidance, counseling, and discipline to the individual soldier for personal and family physical and psychological well-being. Counseling areas included spouse abuse, child abuse, family problems, drug abuse, alcohol abuse, financial problems, personal discipline and potential suicides. Counseling on job performance is not included in this factor.

Supervising Civilians (see Appendix G). This factor reflects tasks involved in supervising civilians such as hiring them, writing their job descriptions, evaluating their performance, and disciplining and rewarding them.

Training Basic Military Skills (see Appendix H). This factor reflects training soldiers to do such things as check their own work, pass SQTs, maintain personal discipline, and do their jobs. It also includes teaching soldiers about proper wearing of the uniform, their rights as veterans, and wills and insurance.

Working with Other U.S. Military Services and Services of Other Countries (see Appendix I). This factor includes working with other U.S. military services such as the Air Force or Navy and with Allied military services. Working with these other services involved activities such as coordinating, acting as a liaison, advising, training, and supervising.

III. Factors for Noncommissioned Officers

Developing Unit Cohesion (see Appendix J). This factor involves activities to strengthen the bond of individual members with the unit by emphasizing shared unit symbols, values, objectives, priorities, standards, and history. It also includes developing bonds between the families and the unit, primarily through unit/family social gatherings.

Coordinating with Other People and Other Units (see Appendix K). This factor includes tasks that involve working with different categories of individuals and others outside the unit. It encompasses the same types of items found in the two separate commissioned officer factors that involve supervising civilians and working with members of other services. In addition, however, it includes coordinating with members of the U.S. Army who are in other units.

General Training, Teaching, and Development (see Appendix L). This factor encompasses all of the items loading on the commissioned officer factor Training Basic Military Skills. However, it also includes training general job-related skills and work habits as well as developing leaders. Examples of the general skills and habits taught were: technical and tactical proficiency, inspecting, interpersonal skills, meeting time requirements, doing the job without supervision, written and oral communication, problem solving, resolving ethical conflicts, handling stress, learning from mistakes, and taking initiative. Examples of tasks involving leader development were: teaching leadership, supporting decisions of subordinate leaders, delegating decision-making to subordinates, developing counseling skills, and identifying potential leaders.

Monitoring Health, Welfare, and Safety (see Appendix M). This factor reflects tasks which involve monitoring maintenance, quarters/barracks, and safety practices in subordinate leaders units. It also includes conducting health and welfare inspections and administering drug abuse screening procedures. Even though this factor deals with soldier health, welfare, and safety, it differs from the officer Individual Guidance, Counseling, and Discipline factor in that the focus is on unit monitoring rather than on individual guidance.

Establishing the Direction of Your Unit/Element (see Appendix N). This factor reflects: establishment of long-term goals and short-term objectives; establishment, enforcement, and

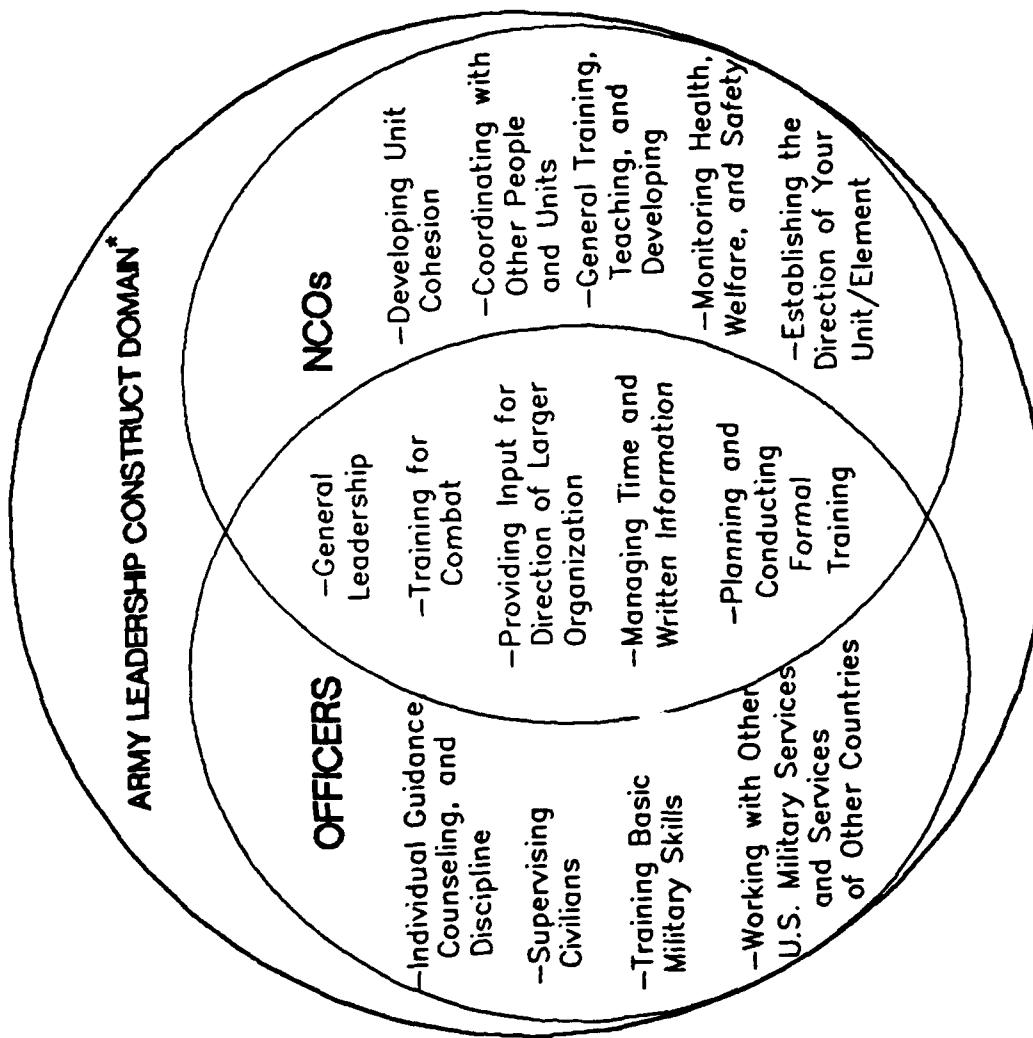
clarification of standards; determination of critical tasks and milestones; and, establishment of the mission for the subordinate unit. This factor differs from the common factor of Providing the Direction of the Larger Organization in that the focus there is outside the unit and here it is within the unit/element.

DISCUSSION

Factor analytic dimensions were derived for a framework of Army leadership, based on responses to an Army-wide leadership tasks analysis instrument. The results revealed that within this framework, there are nine dimensions for commissioned officers and 10 dimensions for noncommissioned officers as depicted in Figure 5. Note that a portion of the Army leadership construct domain is not defined because this research focused on the Active Army only through colonels and did not include other parts of the Army (e.g., Army Reserve and National Guard). Since these other populations were not included, it remains to be determined whether there are other dimensions that need to be added to the Army leadership construct and whether some or all of those depicted in Figure 5 apply.

For both the officers and the NCOs, there was a large general factor and additional smaller factors. In looking at the results, one might ask why certain groups of tasks emerged as separate factors and others were incorporated within one large factor. Why, for example, did Establishing the Direction of Your Unit/Element emerge as a separate factor for NCOs, but most of the tasks in this factor were included in the general factor for officers? The first thing to take into account is that co-performance is an important determinant of the formation of separate factors. Then, once the factors are formed, it is possible to go back to the original data to determine who performs the tasks within each factor. Examination of the task-level data (Steinberg & Leaman, in press-a; Steinberg & Leaman, in press-b) shows that for both officers and NCOs the tasks in the large general factor called General Leadership tended to be performed by a fairly large percent of the respondents, whereas the remaining factors consisted of groups of tasks that tended to be performed by fewer, more specialized groups of respondents. Thus, the general factor could be interpreted as generally applicable to most officers and NCOs, whereas the remaining factors tend to apply to more specialized groups. Thus, Establishing the Direction of Your Unit/Element appears to have emerged as a separate factor for NCOs because it was not generally applicable to all NCOs. The most relevant group of NCOs for this factor appears to be platoon sergeants and first sergeants in TOE units (Steinberg & Leaman, in press-b). On the other hand, almost all of the tasks in this NCO factor appear in the officer General Leadership factor because these tasks are co-performed by many officers along with the other tasks in the officer General Leadership factor. In the same way, the Training for Combat factor is more relevant for those who train for

FRAMEWORK FOR ARMY LEADERSHIP



*NOTE: The entire domain is not defined because only the Active Army through colonel was included in this research.

Figure 5. Factor Analytic Framework for Army Leadership

combat, and the officer factor Supervising Civilians clusters tasks for those who supervise civilians.

I. Factor Analytic Framework Compared to Functional Area Framework

Two frameworks of leadership were derived as part of this research. The functional area framework was derived in the process of developing the task analysis instrument and consists of individual and global duty areas (see Figure 4), whereas the factor analytic framework is based on the responses to the task analysis instrument (see Figure 5). The functional area framework reflects groupings of tasks by topic area, and the factor analytic framework reflects co-performance of tasks. Thus, although both approaches yield groupings which represent the construct of leadership, the groupings in the task analysis instrument reflect leadership functions by topical area and the factors reflect the way jobs in the sample are actually structured.

Both frameworks are useful for organizing leadership training, development, and assessment. Functional task groupings can be used as a framework for communicating what leadership is. For example, the four global duty areas could be used to provide a structure for the "DO" portion of the "BE, KNOW, DO" leadership doctrine (Headquarters, Department of the Army, 1988) and thus provide unifying themes for integrating doctrine, training, development, and assessment. Factor analytic dimensions can be used as a framework for clustering tasks for training and evaluation purposes. They have the advantage of clustering tasks that tend to be performed by the same individuals. Thus, use of the dimensions in designing training could result in more efficiently targeting training to the appropriate individuals.

Although the dimensions provide a foundation for leadership training and evaluation, the reader should be cautioned not to leap from these co-performed leadership factor analytic dimensions directly to implications for training without also taking the following into account:

- (a) the factors reflect what is being done, but not necessarily what should be done according to doctrine.
- (b) some tasks need special training whereas others are learned easily on the job.
- (c) the factors are not equally relevant for all subgroups (e.g., ranks, positions, branches). Although subgroup differences are not presented in this report, we have begun to address them elsewhere (see Steinberg & Leaman, 1989).

II. Factor Analytic Dimensions Compared to Dimensions in the Literature

The factor analysis dimensions were also compared with those in the existing leadership literature in order to determine similarities and differences. It was found that: (a) the name of the dimension provided insufficient information for comparison purposes and that it was necessary to examine the descriptions of the dimensions instead, (b) the dimensions in the literature often differed in scope from those found in the present study, with some being broader and others being narrower, and (c) almost all the dimensions found in the present study can be found to some extent in the literature. The main exception was Planning and Conducting Formal Training.

Of the dimensions found in this research, the two most commonly included in the literature involved: (a) working with others outside the unit/organization and (b) training. Examples of the former are: Coordination of Other Organizational Units and Personnel (Tornow & Pinto, 1976); Liaison (Mintzberg, 1973); Interacting with Outsiders (Luthans & Lockwood, 1984); Focus on Others (Boyatzis, 1980); and Human, Community, and Social Affairs (Hemphill, 1960). Examples of training are: Training and Coaching (Yukl, 1981; Lawler, 1988); Training/Development (Luthans & Lockwood, 1984); and Operations and Training (Gilbert, 1975). Note that in each of these cases, the training is on the job as opposed to in the classroom. Also, similar to the Combat Leadership dimension found here, combat dimensions have been found in the military literature: Combat Leadership (Helme, Willemin, & Grafton, 1971) and Unit Command (Gilbert, 1975).

Other comparisons with the dimensions found here and those reported in the literature can be made, but there is considerable difference in scope. For example:

(a) Dowell and Wexley's (1978) dimensions of Maintaining Safe/Clean Work Areas and Compiling Records and Reports are similar to but are much narrower in scope than the noncommissioned officer dimensions of Monitoring Health, Welfare, and Safety and Managing Time and Written Information. For example, Monitoring Health, Welfare, and Safety involves more than the work areas. It involves living areas and non-work specific areas such as drug abuse. Similarly, Managing Time and Written Information involves more than compiling written materials because it includes managing time as well as writing and editing a variety of materials (e.g., letters, standard operating procedures, and information papers).

(b) Stogdill's dimension of Integration (Bass, 1981) and the Interaction Facilitation dimension found by Yukl (1981) and Bowers & Seashore (1966) are both similar to the noncommissioned officer dimension of Developing Unit Cohesion, but are narrower in scope. The Developing Unit Cohesion dimension goes beyond

resolving conflicts and having members of the group know one another and be friendly. It also encompasses promoting shared values, goals, and standards, with a strong emphasis on identification with the unit.

(c) The General Leadership factor found here is a broad factor that overlaps with a number of different dimensions in the literature, such as those that are related to motivation, counseling, communication with subordinates, and supervision.

(d) Two of Katz and Kahn's (1978) dimensions, Origination of Structure and Interpolation of the Existing Formal Structure, are somewhat parallel to two dimensions found here, Providing Input for the Direction of the Larger Organization and Establishing the Direction of Your Unit/Element. Many other researchers have identified a more general dimension, Planning, which includes a portion of these two dimensions as well as behaviors outside them (e.g., Yukl, 1981; Clement and Ayres, 1976; Lawler, 1988).

On the other hand, there are many dimensions of leadership in the literature that did not appear here as separate dimensions of Army leadership. For example:

- (a) those cited earlier that were clearly business-related such as Product Marketing and Financial Strategy Planning, Union Management Relations, and Entrepreneur.
- (b) Ethics and Management Science (Clement & Ayres, 1976).
- (c) Autonomy of Action and Complexity and Stress (Tornow & Pinto, 1976).
- (d) Spokesperson and Negotiator (Mintzberg, 1973).
- (e) Arbitrator and Mediator (Krech & Crutchfield, 1948).
- (f) Decision Participation and Conflict Management (Yukl, 1981).

Thus, although the dimensions for the Army leadership construct identified here are similar in many ways to leadership dimensions found in the literature, without the empirical research done here, it would not have been possible to determine what these dimensions are. It is important to remember also that these are the dimensions for Army leadership only and do not, as a whole, necessarily apply to other organizations. The implication here is that leadership dimensions are not necessarily the same for each organization and that empirical research targeted to the organization of interest may be necessary to establish the relevant leadership dimensions.

III. Factor Analytic Framework Compared to Doctrinal Framework

The current doctrinal framework for leadership is in terms of the following nine competencies: Communications, Supervision, Teaching and Counseling, Soldier Team Development, Technical and Tactical Proficiency, Decision Making, Planning, Management Technology, and Professional Ethics (Headquarters, Department of the Army, 1988). These nine competencies are to be used to provide a framework for leadership development and assessment.

Although the doctrinal framework is in terms of competencies and the framework presented here is in terms of behavioral dimensions, it is possible to make some comparisons. It is difficult to make one for one comparisons since more than one competency can apply to a given behavioral dimension. For example, the Communications, Decision Making, Planning, and Professional Ethics competencies could apply to most, if not all, of the behavioral dimensions. In addition, there is considerable overlap between the competencies themselves. For example, Supervision involves Communications and Teaching and Counseling; Planning and Decision Making go hand in hand with each other and overlap with almost all of the other competencies). However, it is still possible to look at both types of groupings as a whole and note the commonality of areas covered and differences in emphasis.

The competencies of Management Technology, Supervision, and Soldier Team Development all have counterparts in the behavioral dimensions. Management Technology is very similar to the behavioral dimension Manage Time and Written Information. The Supervision competency is covered within the General Leadership dimension. In addition, there is also a separate officer dimension for Supervising Civilians. Finally, the Soldier Team Development competency is similar to the NCO dimension of Developing Unit Cohesion. However, Developing Unit Cohesion adds the elements of shared unit symbols, values, and history as well as developing bonds between the family and the unit.

Training appeared to be one area that was emphasized more in the factor analytic framework than in the doctrinal framework is training. Although there is a one Teaching and Counseling competency in the doctrinal framework which includes training, there are four separate dimensions related to training in the factor analytic framework: Individual Guidance, Counseling, and Discipline; General Training, Teaching, and Developing; Training for Combat; and Planning and Conducting Formal Training.

There are dimensions in the factor analytic framework which are not reflected in the doctrinal framework. These dimensions are primarily organizational in focus. They include: Providing Input for the Direction of the Larger Organization, Working with Other U.S. Military Services and Services of Other Countries,

Coordinating with Other People and Units, and Monitoring Health, Welfare, and Safety.

In conclusion, the factor analytic framework, based on data from incumbent Army leaders, augments the competency framework which was based on a literature review (Clement & Ayres, 1976). On the one hand, there is considerable overlap between the two frameworks, and, on the other hand, the factor analytic dimensions add additional leadership components not covered by the competencies. Also, since the dimensions are behaviorally based, they can help to facilitate focusing the content of training, development, and assessment. By themselves, competencies do not easily translate directly into specific tasks to be trained. For example, in order to design training relevant to the competency of Communication, it is important to know the nature of the communication task (e.g., writing evaluations, regulations, or operations orders; conducting meetings, giving briefings, training, or counseling). Finally, since the factor analytic dimensions are based on co-performance, they can provide a basis for organizing and targeting separate topic clusters. For this purpose, the factor analytic dimensions have an advantage over the competencies which overlap greatly.

REFERENCES

- Bass, B. M. (1981). Stogdill's handbook of leadership. New York: The Free Press.
- Bass, B. M., & Valenzi, E. R. (1974). Contingent aspects of effective management styles. In J. G. Hunt & L. L. Larson (Eds.), Contingency approaches to leadership. Carbondale: Southern Illinois University Press.
- Bennis, W. G. (1959). Leadership theory and administrative behavior: The problem of authority. Administrative Science Quarterly, 4, 259-301.
- Biggart, N. W., & Hamilton, G. G. (1987). An institutional theory of leadership. The Journal of Applied Behavioral Science, 23, 429-441.
- Binning, J. F., & Barrett, G. V. (1989). Validity of personnel decisions: A conceptual analysis of the inferential and evidential bases. Journal of Applied Psychology, 74, 478-494.
- Bowers, D. G., & Seashore, S. E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. Administrative Science Quarterly, 11, 238-268.
- Boyatzis, R. E. (1980). The Competent Manager. Boston, MA: McBer and Company.
- Butler, R. P., & Cureton, E. E. (1973). Factor analysis of small group leadership behavior. Journal of Social Psychology, 89, 85-89.
- Clement, S. D., & Ayres, D. B. (1976). A matrix of organizational leadership dimensions (Leadership Monograph Series, Monograph #8). Ft. Monroe, VA: U.S. Army Administration Center.
- Dowell, B. E., & Wexley, K. N. (1978). Development of a work behavior taxonomy for first-line supervisors. Journal of Applied Psychology, 63, 563-572.
- Fleishman, E. A. (1953). The description of supervisory behavior. Journal of Applied Psychology, 37, 1-6.
- Ford, J. K., MacCallum, R. C., & Tait, M. (1986). The application of exploratory factor analysis in applied psychology: A critical review and analysis. Personnel Psychology, 39, 291-314.

Gilbert, A. C. F. (1975). Dimensions of certain Army Officer positions derived by factor analysis (Technical Paper #269). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. AD A019 002

Griffen, R. W., Skivington, K. D., & Moorhead, G. (1987). Symbolic and international perspectives on leadership: An integrative framework. Human Relations, 40, 199-218.

Halpin, A. W., & Winer, B. J. (1957). A factorial study of the leadership behavior descriptions. In R. M. Stogdill & A. E. Coons (Eds.), Leader behavior: Its description and measurement. Columbus: Ohio State University, Bureau of Business Research.

Headquarters, Department of the Army (1983). Military leadership, FM 22-100. Washington, DC: Department of the Army.

Headquarters, Department of the Army (1988, draft). Military leadership, FM 22-100. Washington, DC: Department of the Army.

Hebein, J., Kaplan, A., Miller, R., Olmstead, J. & Sharon, B. (1984). NCO leadership: Tasks, skills, and functions (Research Note 84-95). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. AD A142 436

Helme, W. H., Willemin, L. P., & Grafton, F. C. (1971). Dimensions of leadership in a simulated combat situation (Technical Research Report 1172). Arlington, VA: U.S. Army Behavior and Systems Research Laboratory. AD A734 325

Hemphill, J. K. (1960). Dimensions of executive positions: A study of the basic characteristics of the positions of ninety-three business executives (Bureau of Business Research Monograph #98). Columbus, OH: The Ohio State University.

House, R. J., & Dressler, G. (1974). The path-goal theory of leadership: Some post hoc and a priori tests. In J. G. Hunt & L. L. Larson (Eds.), Contingency approaches to leadership. Carbondale: Southern Illinois University Press.

Karmel, B. (1978). Leadership: A challenge to traditional research methods and assumptions. Academy of Management Review, 3, 475-482.

Karmel, B., & Egan, D. M. (1976). Managerial performance: A new look at underlying dimensionality. Organizational Behavior and Human Performance, 15, 322-334.

- Katz, D., & Kahn, R. L. (1978). The social psychology of organizations. New York: Wiley.
- Krech, D., & Crutchfield, R. S. (1948). Theory and problems of social psychology. New York: McGraw-Hill.
- Lawler, E. E. III, (1988). Substitutes for hierarchy. Organizational Dynamics, 17, 5-15.
- Luthans, F. & Lockwood, D. E. (1984). Toward an observation system for measuring leader behavior in natural settings. In J. G. Hunt, D. Hosking, C. A. Schriesheim, & R. Stewart (Eds.), Leaders and managers: International perspectives on managerial behavior and leadership. New York: Pergamon Press.
- Melching, W. H., & Borcher, S. D. (1973). Procedures for constructing and using task inventories (Research and Development Series #91). Columbus, OH: The Center for Vocational and Technical Education, The Ohio State University.
- Mintzberg, H. (1973). The nature of managerial work. New York: Harper & Row.
- Meindl, J. R., Ehrlich, S. B., & Dukerich, J. M. (1985). The romance of leadership. Administrative Science Quarterly, 30, 79-102.
- Morse, J. J., & Wagner, F. R. (1978). Measuring the process of managerial effectiveness. Academy of Management Journal, 21, 23-35.
- Nunnally, J.C. (1978). Psychometric theory. New York: McGraw Hill.
- Olmstead, J. A., Cleary, F. K., Lackey, L. L., & Salter, J. A. (1973). Development of leadership assessment simulations (HumRRO Tech. Report 73-21). Alexandria, VA: Human Resources Research Organization.
- Pfeffer, J. (1977). The ambiguity of leadership. Academy of Management Review, 2, 104-112.
- Prien, E. P. (1963). Development of a supervisor position description questionnaire. Journal of Applied Psychology, 47, 10-14.
- Salancik, G. R., Calder, B. J., Rowland, K. M., Leblebici, H., & Conway, M. (1975). Leadership as an outcome of social structure and process: A multidimensional analysis. In J. G. Hunt & L. L. Larson (Eds.), Leadership frontiers. Carbondale: Southern Illinois University Press.

SAS Institute, Inc. (1985). SAS user's guide: Statistics (Version 5). Cary, NC: SAS Institute Inc.

Smircich, L., & Morgan, G. (1982). Leadership: The management of meaning. Journal of Applied Behavioral Science, 18, 257-273

Steinberg, A. G. (1987). The leader requirements survey package (Research Product #87-21). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. AD A190 582

Steinberg, A. G., & Leaman, J. A. (1989). Army leadership dimensions. Presented at the 31st Annual Military Testing Association Conference, San Antonio, Texas.

Steinberg, A. G., & Leaman, J. A. (in press-a). The Army leader requirements task analysis: Commissioned officer results, (ARI Technical Report). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Steinberg, A. G., & Leaman, J.A. (in press-b). The Army leader requirements task analysis: Noncommissioned officer results, (ARI Technical Report). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Stogdill, R. M. (1974). Handbook of leadership: A survey of theory and research. New York: The Free Press.

Stogdill, R. M., Goode, O. S., & Day, D. R. (1962). New leader behavior description subscales. The Journal of Psychology, 54, 259-269.

Tabachnick, B. G. & Fidell, L. S. (1989). Using multivariate statistics. New York, Harper & Row.

Tornow, W. W. & Pinto, P. R. (1976). The development of a managerial job taxonomy: A system for describing, classifying, and evaluating executive positions. Journal of Applied Psychology, 61, 410-418.

Weller, D. R., & Blaiwes, A. S. (1976). Leadership dimensions of navy recruit company commanders and recruit morale and performance. Psychological Reports, 39, 767-770.

Yukl, G. A. (1971). Toward a behavioral theory of leadership. Organizational Behavior and Human Performance, 6, 414-440.

Yukl, G. A. (1981). Leadership in organizations. Englewood Cliffs, NJ: Prentice-Hall.

Yukl, G. A., & Nemoroff, W. (1979). Identification and measurement of specific categories of leadership behavior: A progress report. In J. G. Hunt & L. L. Larson (Eds.), Crosscurrents in leadership. Carbondale: Southern Illinois University Press.

APPENDIX A: GENERAL LEADERSHIP FACTOR

TASKS LOADING .40 OR MORE ON OFFICER AND NCO FACTOR 1
(IN TASK ORDER)

TASK	OFFICER #	FACTOR 1 Loadings	NCO FACTOR 1 Loadings	TASK
1	0.70	0.47		Improve performance of subordinates
3	0.67			Develop good work habits in soldiers
4	0.57			Develop well-trained unit/element
7	0.46			Train soldiers to be technically and tactically proficient
13	0.59			Train soldiers to check their own work
14	0.61			Train soldiers to recognize ethical dimensions of both their decisions and behaviors
15	0.45			Crosstrain soldiers
18	0.55			Train soldiers to handle stress
19	0.65			Train soldiers to do their jobs without supervision
20	0.63			Train soldiers to meet time requirements
22	0.55			Teach soldiers written communication
23	0.55			Teach soldiers oral communication
24	0.58	0.46		Teach soldiers personal discipline
26	0.50			Teach soldiers interpersonal skills
27	0.53			Teach soldiers problem solving
28	0.49			Teach soldiers general decision-making strategies
37	0.42			Teach enlisted soldiers to do their jobs
38	0.43			Teach officers to do their jobs
40	0.54	0.47		Train soldiers in leadership
41	0.70			Delegate decision-making to subordinates
42	0.68			Delegate authority to the lowest appropriate level
43	0.73			Train subordinates to take initiative
44	0.59	0.42		Develop counseling skills of subordinate leaders
45	0.41			Advise superiors on leadership issues
46	0.53			Advise subordinate leaders on ways to resolve ethical conflicts
48	0.49			Rotate subordinates' assignments in order to give them varied experiences
49	0.53			Provide opportunities for subordinates to lead in your place in garrison
51	0.70			Support decisions of subordinate leaders
52	0.71			Allow subordinate leaders to learn from their mistakes
55	0.42			Implement leader-development policies
56	0.55			Identify potential leaders
57	0.51			Recommend military training
58	0.47			Recommend civilian education
59	0.61			Provide soldiers the opportunity to receive formal training
60	0.61			Provide time for subordinates to participate in self-development programs
93	0.41			Train junior enlisted soldiers
147	0.72	0.57		Motivate subordinates
152	0.56	0.40		Motivate subordinates to take on special projects with short suspenses
153	0.57	0.53		Motivate soldiers to carry out the mission

(continued)

TASK	OFFICER	NCO
#	FACTOR 1	FACTOR 1
	Loadings	Loadings

			TASK
154		0.46	Maintain troop interest in training in garrison
157	0.49	0.54	Motivate soldiers who have attitude problems
158	0.47	0.48	Motivate soldiers to reenlist
159		0.45	Motivate soldiers to perform maintenance
160	0.59	0.47	Set the example
161	0.52	0.45	Demonstrate Army values
165	0.52		Foster a positive command climate
166	0.48		Give your soldiers the best leaders available
168	0.55	0.49	Explain why tasks need to be done
169	0.58	0.49	Give pep talks
170	0.71	0.60	Recognize soldier accomplishments
171	0.52	0.50	Inform unit about why you rewarded an individual
172		0.50	Encourage competition for Soldier-of-the Month/Quarter/Year
173	0.56	0.53	Provide challenges to keep up motivation
174		0.43	Develop tasks to relieve boredom
177	0.53	0.51	Motivate subordinates by helping them with their tasks
178	0.60	0.49	Refrain from doing subordinates' jobs
179	0.54	0.49	Accompany immediate subordinates on unpleasant tasks
180	0.61	0.58	Remain available to immediate subordinates until they finish for the day
186		0.47	Conduct inspections
189	0.66	0.62	On daily basis, have face-to-face contact with immediate subordinates
190	0.68	0.58	Coach subordinates on career development
191	0.62	0.63	Arrange for soldiers to get time off
192	0.54	0.43	Obtain input from subordinates for SOPs
194		0.42	Each chow with subordinates
195	0.44	0.52	Give detailed guidance to get the task done
196	0.41	0.44	Require subordinates to maintain military bearing and appearance in the field
200	0.44	0.45	Act as mediator in disputes
201		0.41	Identify potential suicides
203	0.57		Hold group planning sessions with subordinates
204	0.53	0.41	Hold group problem-solving sessions with subordinates
209	0.56	0.52	Encourage subordinates to set standards higher than required
210	0.43		Encourage the unit to critique its own performance
211	0.47		Ask subordinate leaders what should be trained
212	0.48		Obtain subordinate input to clarify unit goals
213		0.46	Assign new soldiers to train with experienced buddy pairs
214	0.50	0.47	Encourage members of the group to rely on one another
217	0.58	0.49	Develop close working relationships with subordinates
219	0.43		Act as "father figure" to subordinates
220	0.60	0.52	Act as a buffer between superior and subordinates
221		0.45	Act as a buffer between enlisted and officers
222	0.43	0.42	Require attendance at military ceremonies (e.g., parades, award ceremonies)
223	0.55	0.46	Attend ceremonies for subordinates
226	0.49		Assess the climate of the unit

(continued)

TASK	OFFICER	NCO
#	FACTOR 1	FACTOR 1
	Loadings	Loadings

		Loadings	Task
227	0.49		Set unit climate
228	0.49		Monitor unit cohesion
229	0.61	0.40	Identify sources of discontent
230	0.62	0.49	Dispel rumors
231	0.52	0.49	Talk to subordinates about causes for low morale in the unit
232	0.48	0.57	Resolve conflicts among the troops
233	0.52	0.46	Establish procedures for reception/integration of newcomers
234	0.54	0.50	Inform newcomers of the priorities of the unit
235	0.43		Initiate hail-and-farewell
238	0.42		Promote shared values as a basis for acceptance by unit members
239	0.44		Promote shared unit standards as a basis for unit membership
240	0.46	0.44	Instill belief that your unit is better than other units
241	0.55		Communicate the unit mission
242	0.50		Align individual and unit goals
243	0.61	0.52	Make the soldier feel needed by the unit
244	0.62		Encourage soldiers to join military associations (e.g., AUSA, NCOA, branch associations)
249	0.43		Arrange unit social functions (picnics, group outings)
250	0.44		Welcome the soldier's family into the unit
254	0.74	0.65	Tell soldiers when they are performing well
255	0.56	0.67	Give formal positive counseling statements
256	0.66	0.55	Tell subordinates what their reward will be for doing a good job
257	0.49	0.43	Issue certificates of achievement
258	0.56	0.48	Write letters of appreciation to recognize subordinates' performance
259	0.61	0.68	Recommend subordinates for promotion
260	0.69	0.64	Recommend awards for soldiers
263		0.57	Request time off for a soldier
264	0.63	0.64	Make the decision to give a soldier time off
265	0.53	0.53	Dismiss subordinates before the end of the duty day if they have finished their work
266	0.58	0.56	Reward achievements by giving more responsibility
269	0.51	0.70	Counsel subordinates about potential disciplinary action
270	0.67	0.65	Recommend disciplinary actions
271		0.44	Decide on disciplinary actions
272	0.46	0.62	Discipline subordinates for inappropriate behavior
273	0.43	0.59	Report discipline problems to superiors
279	0.53	0.50	Give verbal reprimand
281		0.51	Assign extra training/corrective training
284	0.68	0.56	Foster a supportive, caring environment
285	0.43	0.66	Ensure that subordinates follow good health/hygiene practices in garrison
286		0.47	Ensure that subordinates follow good health/hygiene practices in the field
287		0.41	Ensure that rations are issued
288	0.42	0.57	Teach soldiers to be self-sufficient
289	0.46	0.58	Teach soldiers to be socially responsible
290		0.46	Teach soldiers about sexually transmitted diseases
291		0.48	Ensure that soldiers' personal property is secure prior to their going to the field

(continued)

TASK	OFFICER	NCO
#	FACTOR 1	FACTOR 1
	Loadings	Loadings

			Loadings	Loadings	TASK
292	0.60	0.63			Promote physical fitness
293	0.63	0.70			Assist subordinates with their personal problems
294		0.42			Advise subordinates on how to deal with spouses
298		0.61			Take care of soldier pay problems
299		0.47			Make appointments for soldiers with finance
300		0.49			Personally hand pay voucher to all subordinates
303		0.43			Act as sponsor for newly-arrived soldiers
304		0.47			Avoid fraternization with female soldiers
306	0.45	0.52			Discourage fraternization
307	0.53	0.57			Ensure the absence of sexual harassment
308		0.56			Enforce crime-prevention procedures
310		0.66			Prepare subordinates for promotions
311		0.45			Facilitate soldier outprocessing
312		0.51			Identify and promote individual subordinate's interests (e.g., sports, hobbies)
313	0.48	0.64			Provide time for subordinates to do personal errands (e.g., haircut)
314	0.47				Provide soldiers rides/transportation
315		0.42			Drive drunk subordinates home
317		0.45			Manage time
318	0.63	0.58			Manage people/manpower
320		0.41			Manage things (money, supplies, equipment, etc.)
322		0.47			Solve each problem in order of priority
324		0.49			Determine time soldiers are dismissed for the day
325	0.45	0.49			Seek ways to improve productivity
341		0.44			Assign individual soldiers to details (e.g., painting barracks, raking)
359		0.46			Ensure that subordinates use complete/up-to-date manuals
361	0.42				Establish SOPs for your unit
403	0.72	0.67			Supervise U.S. soldiers
407	0.70	0.69			Supervise male soldiers
408	0.54	0.49			Supervise female soldiers
411	0.62	0.51			Supervise soldiers who supervise others
412	0.41	0.42			Supervise subordinates who are older than you
414		0.47			Supervise subordinates who have more education than you
415		0.54			Supervise subordinates who are not highly motivated
419		0.49			Supervise soldiers, most of whom live on post
420	0.41	0.41			Supervise soldiers, most of whom live off post
423	0.59	0.52			Establish communication channels
424	0.66	0.58			Encourage upward communication
425	0.65	0.54			Encourage downward communication
426	0.66	0.63			Encourage subordinates to provide positive feedback
427	0.69	0.60			Encourage subordinates to provide constructive criticism
428	0.52	0.44			Evaluate communication channels
430	0.57	0.58			Tell subordinates what their critical tasks are
431		0.57			Tell subordinates daily what their tasks are

(continued)

TASK	OFFICER	NCO
#	FACTOR 1	FACTOR 1
	Loadings	Loadings

TASK

432	0.61	0.64	Provide subordinates with guidelines to follow
433	0.53	0.49	Communicate the intent of the commander
434	0.45	0.50	Conduct meetings
436		0.44	Give information briefings
437	0.55	0.62	Keep soldiers informed about the current situation
440		0.46	Check that bulletin boards are current
442	0.47		Ask subordinates to teach you what you don't know
444		0.43	Provide positive feedback to higher-ranked individuals
453	0.46		Keep the commander informed about people problems
458		0.44	Represent the soldiers to the commander
463		0.53	Check equipment of subordinates
464	0.46	0.63	Monitor troop appearance
468		0.51	Inspect immediate subordinates' living quarters
469	0.44	0.72	Check that subordinates are at their appointed place of duty
470	0.60	0.71	Check that subordinates accomplish assigned tasks
471		0.59	Monitor subordinates as they do technical tasks
472		0.55	Keep job books (or the equivalent) for subordinates
473		0.60	Identify soldiers who need special training to increase competence
484	0.42		Assess whether overall unit mission is being accomplished
486	0.48	0.57	Inspect work upon its completion by subordinates
487		0.43	Inspect after your subordinate leaders inspect
488	0.45	0.44	Check with people who rely on the work/products of your subordinates
490	0.45	0.53	Evaluate individual soldier performance against established standards
491	0.62	0.57	Assess potential of subordinates
492	0.60	0.54	Write EERS
493	0.51		Write OERS
495	0.43		Review performance ratings
496	0.43		Endorse performance ratings
497	0.43		Act as second-level signer for evaluations (OERs, GPASSs, etc.)
499	0.68	0.74	Counsel male soldiers on their performance
500	0.50	0.51	Counsel female soldiers on their performance
502	0.52	0.68	Document performance problems of subordinates
503	0.50	0.74	Write counseling statements
504	0.65	0.72	Communicate performance standards to subordinates
505		0.73	Counsel soldiers on wearing the proper uniform
506		0.66	Counsel soldiers on observing posted directives
507	0.40	0.70	Counsel soldiers on military courtesy
508	0.48	0.59	Counsel subordinate leaders on correcting their subordinates
509	0.52	0.64	Make on-the spot corrections
510		0.46	Give reception and integration counseling
513		0.53	Counsel soldiers on family problems
514		0.60	Counsel soldiers on finances
515		0.43	Counsel soldiers on child abuse

(continued)

TASK	OFFICER	NCO	
#	FACTOR 1	FACTOR 1	
Loadings	Loadings	Loadings	TASK
516		0.44	Counsel soldiers on spouse abuse
517	0.58	0.65	Counsel soldiers on their careers
518		0.58	Counsel soldiers on alcohol abuse
519		0.56	Counsel soldiers on drug abuse
521		0.57	Identify soldiers who may have undisclosed personal problems
522		0.60	Refer soldiers to other counselors
523	0.52		Lead the unit/element without much direct supervision
525	0.51		Communicate mission purpose
526	0.54		Establish short-term unit/element objectives
527	0.54		Establish long-term unit/element objectives
528	0.60		Establish standards for your unit/element
529	0.60		Clarify standards for your unit/element
530	0.61		Enforce standards for your unit/element
531	0.48		Identify alternative courses of action
533	0.45		Determine the critical tasks of the overall mission
535	0.49		Ensure readiness of your unit/element

APPENDIX B: TRAINING FOR COMBAT FACTOR

TASKS LOADING .40 OR MORE ON OFFICER AND NCO FACTOR 2 (IN TASK ORDER)

OFFICER NCO			
TASK FACTOR 2 FACTOR 2			
#	Loadings	Loadings	TASK
2	0.47		Develop regular habits of maintenance in the unit
8	0.55	0.43	Train soldiers for front-line combat
10	0.51	0.40	Train soldiers to work with a weapons system
12	0.44		Train soldiers to maintain equipment
29	0.56		Teach soldiers tactics
50	0.55	0.45	Provide opportunities for subordinates to lead in your place in the field
61	0.47		Determine what should be trained in garrison
62	0.61	0.45	Determine what should be trained in the field
67	0.41		Develop training schedule
68	0.46		Incorporate training into ongoing, 24-hour mission
69	0.43		Coordinate training with partnership unit (i.e., Allied Army unit)
78	0.56	0.43	Conduct collective training of units larger than teams
80	0.62	0.60	Conduct battle drills
85	0.40		Train by demonstrating how it's done (e.g., demonstrate counseling)
99	0.42		Train cross-attached units
103	0.78	0.71	Lead troops into combat-type situations
104	0.55	0.55	Lead task force
105	0.65	0.53	Monitor field training
106	0.71	0.64	Establish maintenance priorities in the field
107	0.61	0.54	Monitor logistics in the field
108	0.73	0.65	Coordinate with adjacent units during combat training
109	0.64	0.68	Control spread of fear in combat-type situations
110	0.59	0.67	Enforce the Laws of War (including the Geneva and Hague conventions)
111	0.70	0.57	Take charge in the absence of instructions from commander
112	0.64	0.59	In combat-type situation, assign soldiers to perform in totally different MOS/Specialty area
113	0.70	0.63	State the mission
114	0.67	0.58	Ensure mission accomplishment
115	0.76	0.72	Decide on courses of action for the battleplan
116	0.70	0.69	Decide on priority targets
117	0.79	0.76	Obtain operation order
118	0.71	0.64	Determine how to accomplish the mission
119	0.82	0.75	Take charge of tactics in the field
120	0.78	0.76	Direct tactical security in the field
121	0.70	0.71	Oversee preparation to fire
122	0.69	0.66	Influence events on the battlefield that are beyond visual range
123	0.70	0.71	Supervise reconnaissance efforts
124	0.63	0.71	Organize patrols
125	0.64	0.71	Provide combat intelligence information
126	0.69	0.67	Set up command post

(continued)

OFFICER NCO
TASK FACTOR 2 FACTOR 2

Loadings Loadings TASK

127	0.75	0.68	Prepare the unit to move out
128	0.71	0.66	Assist commander with maneuver of the unit
129	0.79	0.71	Position the elements of your unit
130	0.60	0.67	Direct the testing of weapons in the field
131	0.65	0.63	Direct the use of multiple weapon systems
132	0.68	0.64	Ensure that vehicles are refueled
133	0.52	0.52	Dispatch vehicles
134	0.73	0.65	Maintain communication with the next higher headquarters
135	0.70	0.65	Direct communications in the field
136	0.69	0.66	Monitor the radio
137	0.72	0.71	Request indirect fire
138	0.81	0.75	Issue fragmentary orders
139	0.81	0.75	Issue warning orders
140	0.71	0.72	Plan for prompt medical attention for battle casualties
141	0.62	0.69	Oversee evacuation of casualties
142	0.72	0.73	Develop sleep plans for continuous operations
143	0.74	0.73	Enforce sleep plans
144	0.61	0.67	Set meal times
145	0.70	0.70	Assure timely resupply of ammunition and/or food during combat exercises
146	0.70	0.67	Assess battle damage
149	0.66	0.61	Motivate troops to sustain combat-ready teams
150	0.57	0.47	Motivate troops to become more aggressive
151	0.64	0.62	Motivate troops to close with the enemy
154	0.47		Maintain troop interest in training in garrison
155	0.64	0.60	Increase soldier willingness to take risks in combat
156	0.69	0.61	Keep soldiers motivated under sleep deprivation conditions
159	0.56		Motivate soldiers to perform maintenance
162	0.55	0.49	Demonstrate expertise on weapons subordinates use
163	0.70	0.62	Direct/Lead from a forward position in the battle
167	0.63	0.57	Provide resources needed to fight the battle
176	0.68		Reduce the number of training distractors
181	0.71	0.61	Train subordinates in realistic combat situations/exercises
182	0.73	0.64	In combat/combat-type situations, remain with the element you lead
183	0.61	0.51	Share the hardships with soldiers in the field
184	0.54	0.50	Encourage higher-level leaders to visit troops in the danger area
185	0.64	0.50	Motivate good maintenance by requiring soldiers to stay with vehicles until they work
186	0.44		Conduct inspections
196	0.55	0.43	Require subordinates to maintain military bearing and appearance in the field
198	0.40		Read inspirational history to troops at formation
202	0.43		Train all of your unit members together
205	0.43		Hold formations
211	0.42		Ask subordinate leaders what should be trained
245	0.40		Provide opportunities for the unit to compete against other units

(continued)

OFFICER NCO		
TASK FACTOR 2 FACTOR 2		
#	Loadings	Loadings
TASK		
286	0.58	0.44 Ensure that subordinates follow good health/hygiene practices in field
287	0.58	0.45 Ensure that rations are issued
291	0.51	0.45 Ensure that soldiers' personal property is secure prior to their going to the field
296	0.52	0.42 Ensure that spouses are aware of schedule for upcoming FTXs
309	0.44	Check on chow line
438	0.60	Write operation orders
439	0.61	Make sure that subordinates backbrief operations orders
448	0.49	0.43 Provide superiors with information about the enemy situation
451	0.59	Backbrief operation orders
462	0.44	Monitor rear detachment organization
463	0.52	Check equipment of subordinates
465	0.45	Monitor safety practices in subordinate leader's units
466	0.52	Monitor maintenance in subordinate leaders' units
467	0.45	Monitor quarters/barracks in subordinate leader's unit
476	0.41	Conduct health and welfare inspections
481	0.48	Act as observer/controller for field exercises
482	0.48	Conduct after action reviews (AARs)
485	0.58	Evaluate individual soldier performance against established standards
535	0.42	Ensure readiness of your unit/element

APPENDIX C: PROVIDING INPUT FOR THE DIRECTION OF THE LARGER ORGANIZATION FACTOR

**TASKS LOADING .40 OR MORE ON OFFICER FACTOR 4 AND NCO FACTOR 6
(IN TASK ORDER)**

TASK	OFFICER #	NCO FACTOR 4	FACTOR 6	Loadings	Loadings	TASK
536		0.58	0.66			Determine goals of the larger organization
537		0.59	0.69			Periodically reassess goals of the larger organization
538		0.61	0.62			Determine organizational priorities
539		0.68	0.72			Determine philosophy of the organization
540		0.69	0.71			Create the vision of the organization
541			0.62			Suggest Army theme of the year
542		0.60	0.60			Make policy decisions
543			0.64			Write doctrine
544		0.67	0.66			Provide general direction for organizational planning
545		0.60	0.73			Design an organizational planning system
546		0.66	0.74			Determine values of the organization
547		0.61	0.71			Write policies to make organizational values operational
548		0.68	0.72			Structure the organization
549		0.70	0.75			Designate organizational relationships
550		0.47	0.73			Determine force structure required to satisfy tactical planning
551		0.63	0.62			Coordinate/integrate subsystems in the organization
552		0.66	0.64			Integrate organizational programs with objectives
553			0.56			Create combined arms teams
554			0.58			Integrate combined arms teams with logistics and support functions
555			0.57			Participate in design of combat-ready force for joint military operations
556		0.53	0.62			Design organizational information systems
557		0.59	0.61			Design organizational chain of communication
558		0.63	0.58			Establish the level at which decisions are made
560			0.48			Assess the general political climate in other countries

APPENDIX D: MANAGING TIME AND WRITTEN INFORMATION FACTOR

TASKS LOADING .40 OR MORE ON OFFICER FACTOR 5 AND NCO FACTOR 7 (IN TASK ORDER)

TASK	OFFICER # FACTOR 5	NCO FACTOR 7 Loadings	TASK
317		0.43	Manage time
319	0.46	0.49	Manage information
320		0.40	Manage things (money, supplies, equipment, etc.)
321	0.45	0.48	Conduct crisis management (put out fires)
322	0.45	0.43	Solve each problem in order of priority
323		0.44	Decide on changes in scheduled activities
348	0.47		Gather information needed to do the job right
355		0.41	Use statistics to assess how well unit is performing
357		0.49	Supervise administrative services
358	0.41	0.48	Organize office staff
360	0.45	0.46	Submit after-action reports
361		0.48	Establish SOPs for your unit
363		0.51	Revise SOPs
369	0.50	0.55	Edit and proofread written materials
370	0.52	0.53	Supervise completion of reports
371	0.57	0.41	Write status reports
372	0.47		Write technical reports
373	0.52	0.49	Write letters of instruction
374	0.47		Write staff studies
376	0.59	0.44	Write information papers
378	0.41		Update regulations
379	0.49	0.44	Decide where to route task requests
383		0.41	Respond to the needs of other units
436	0.41		Give information briefings
449	0.47		Explain the "why" of things to higher-ranked individuals
454	0.51		Make presentations at decision briefings
460	0.45		On a regular basis, respond to direct taskings from several individuals

APPENDIX E: PLANNING AND CONDUCTING FORMAL TRAINING FACTOR

TASKS LOADING .40 OR MORE ON OFFICER FACTOR 6 AND NCO FACTOR 8
(IN TASK ORDER)

Task #	OFFICER FACTOR 6 Loadings	NCO FACTOR 8 Loadings	TASK
16	0.43		Train soldiers to be instructors
63	0.56	0.53	Determine what should be taught in the classroom
64	0.61	0.57	Write lesson plans
65	0.60	0.58	Design training aids
66	0.53	0.59	Determine the amount of training time
67	0.48	0.54	Develop training schedule
69		0.41	Coordinate training with partnership unit (i.e., Allied Army unit)
70		0.45	Coordinate training with roundout units/affiliates (e.g., National Guard, Reserves)
71	0.55	0.58	Plan training programs
72	0.54	0.57	Evaluate training programs
73	0.55	0.57	Evaluate effectiveness of training
74	0.54	0.59	Modify training procedures
76	0.43		Conduct individual soldier training
77	0.42		Conduct team training
81	0.50	0.52	Instruct in a branch school or training center
85	0.42	0.40	Train by demonstrating how it's done (e.g., demonstrate counseling)
86	0.56	0.56	Monitor instructor/trainer preparation
87	0.58	0.54	Train the trainers
88	0.54	0.54	Evaluate the trainers
89	0.58	0.54	Train people who are the same rank as you
90	0.55	0.54	Train people who are higher in rank than you
91	0.54	0.42	Train people who are lower in rank than you
93		0.41	Train junior enlisted soldiers
94	0.42	0.46	Train NCOs
95	0.49	0.46	Train officers
97	0.40	0.44	Train military personnel from other U.S. services (e.g., U.S. Navy)
98		0.45	Train Allied military personnel
100	0.42		Give technical training to subordinates whose MOS/Specialty Area is the same as yours
101	0.40	0.40	Give technical training to subordinates whose MOS/Specialty Area differs from yours

APPENDIX F: INDIVIDUAL GUIDANCE, COUNSELING, AND DISCIPLINE FACTOR

TASKS LOADING .40 OR MORE ON OFFICER FACTOR 3
(IN TASK ORDER)

Task #	OFFICER FACTOR 3 Loadings	TASK
172	0.40	Encourage competition for Soldier-of-the Month/Quarter/Year
193	0.42	Monitor remedial PT
201	0.55	Identify potential suicides
205	0.47	Hold Formations
206	0.40	Position unit facilities together (e.g., barracks, orderly room, etc.)
215	0.40	Upgrade informal leaders to legitimate leader positions
224	0.49	Conduct memorial services for unit's dead
225	0.53	Visit troops in stockade
231	0.41	Talk to subordinates about causes for low morale in the unit
232	0.47	Resolve conflicts among the troops
237	0.43	Familiarize the soldier with the history of the unit
245	0.41	Provide opportunities for the unit to compete against other units
248	0.55	Organize prayer breakfast
250	0.44	Welcome the soldier's family into the unit
251	0.50	Arrange gatherings with troops and their families
252	0.50	Develop bonds among families in the unit
263	0.40	Request time off for a soldier
268	0.46	Allow extra privileges
269	0.45	Counsel subordinates about potential disciplinary action
270	0.41	Recommend disciplinary actions
271	0.43	Decide on disciplinary actions
272	0.44	Discipline subordinates for inappropriate behavior
273	0.45	Report discipline problems to superiors
274	0.46	Administer punishments under UCMJ
275	0.50	Initiate administrative actions (e.g., Article 15s)
276	0.45	Administer Article 15s
277	0.44	Initiate court martial proceedings
279	0.64	Give verbal reprimand
280	0.42	Draft letter of reprimand
281	0.51	Assign extra training/corrective training
285	0.48	Ensure that subordinates follow good health/hygiene practices in garrison
288	0.43	Teach soldiers to be self-sufficient
289	0.51	Teach soldiers to be socially responsible
290	0.59	Teach soldiers about sexually transmitted diseases
291	0.47	Ensure that soldiers' personal property is secure prior to their going to the field
294	0.59	Advise subordinates on how to deal with spouses
295	0.54	Conduct "We Care Day" for dependents
296	0.42	Ensure that spouses are aware of schedule for upcoming FTXs
298	0.54	Take care of soldier pay problems

(continued)

Task OFFICER
FACTOR 3
Loading TASK

299	0.55	Make appointments for soldiers with finance
300	0.40	Personally hand pay voucher to all subordinates
301	0.53	Provide survivor benefits information to soldiers/families
302	0.41	Act as credit reference for subordinates
306	0.42	Discourage fraternization
308	0.46	Enforce crime-prevention procedures
309	0.44	Check on chow line
310	0.45	Prepare subordinates for promotions
311	0.51	Facilitate soldier outprocessing
312	0.49	Identify and promote individual subordinate's interests (e.g., sports, hobbies)
314	0.48	Provide soldiers rides/transportation
315	0.47	Drive drunk subordinates home
316	0.51	Arrange to get soldiers out of jail
335	0.59	Recommend compassionate reassignment or hardship discharge
381	0.44	Process soldiers for elimination
384	0.53	Coordinate drug and alcohol counseling programs with outside agencies
395	0.41	Perform duties of health and services liaison officer
440	0.50	Check that bulletin boards are current
458	0.40	Represent the soldiers to the commander
467	0.41	Monitor quarters/barracks in subordinate leader's unit
468	0.41	Inspect immediate subordinates' living quarters
476	0.49	Conduct health and welfare inspections
477	0.43	Conduct safety inspections
478	0.50	Administer drug abuse screening procedures
479	0.53	Determine whether a unit drug problem exists
505	0.47	Counsel soldiers on wearing the proper uniform
506	0.50	Counsel soldiers on observing posted directives
507	0.48	Counsel soldiers on military courtesy
510	0.47	Give reception and integration counseling
511	0.64	Advise spouses of soldiers
512	0.60	Explain the soldiers' jobs to their families
513	0.71	Counsel soldiers on family problems
514	0.66	Counsel soldiers on finances
515	0.73	Counsel soldiers on child abuse
516	0.73	Counsel soldiers on spouse abuse
518	0.69	Counsel soldiers on alcohol abuse
519	0.70	Counsel soldiers on drug abuse
520	0.52	Counsel soldiers against smoking
521	0.61	Identify soldiers who may have undisclosed personal problems
522	0.64	Refer soldiers to other counselors

APPENDIX G: SUPERVISING CIVILIANS FACTOR

TASKS LOADING .40 OR MORE ON OFFICER FACTOR 7 (IN TASK ORDER)

TASK	OFFICER	
#	FACTOR 7	
Loadings		TASK
261	0.57	Recommend awards for civilians
282	0.57	Discipline civilian personnel
283	0.48	Recommend that supervisors award/discipline civilians
343	0.63	Hire civilian personnel
344	0.61	Develop job descriptions for civilian personnel
382	0.59	Approve requests for civilian personnel actions
405	0.59	Supervise U.S. civilians
417	0.48	Supervise civilians who are retired military
422	0.57	Supervise a greater number of civilians than military
494	0.65	Write civilian performance appraisals
495	0.47	Review performance ratings
498	0.42	Serve on selection and/or promotion boards
501	0.61	Counsel civilians on their performance

APPENDIX H: TRAINING BASIC MILITARY SKILLS FACTOR

TASKS LOADING .40 OR MORE ON OFFICER FACTOR 8
(IN TASK ORDER)

TASK OFFICER
FACTOR 8
Loadings TASK

6	0.41	Train soldiers for the skills required to pass SQTs
13	0.40	Train soldiers to check their own work
15	0.40	Crosstrain soldiers
24	0.41	Teach soldiers personal discipline
25	0.42	Teach soldiers about wills and insurance
31	0.45	Teach soldiers about their rights as veterans
32	0.40	Teach soldiers about legal rights of civilian employees
33	0.49	Teach enlisted soldiers proper wearing of the Army uniform
34	0.40	Teach officers proper wearing of the Army uniform
35	0.44	Teach enlisted soldiers basic military skills
37	0.40	Teach enlisted soldiers to do their jobs
39	0.41	Prepare individuals to appear before review boards

APPENDIX I: WORKING WITH OTHER U.S. MILITARY SERVICES
AND SERVICES OF OTHER COUNTRIES FACTOR

TASKS LOADING .40 OR MORE ON OFFICER FACTOR 9
(IN TASK ORDER)

TASK	OFFICER	
#	FACTOR 9	
Loadings	Task	
98	0.46	Train Allied military personnel
388	0.41	Coordinate with other U.S. military services (e.g., Air Force, Navy)
389	0.65	Coordinate activities with military services of other countries
390	0.58	Coordinate supervision of Allied personnel with Allied military leader counterpart
391	0.64	Recognize Allied country military codes/customs
397	0.45	Perform duties of liaison with NATO
398	0.56	Perform duties of liaison with government of the country to which you are assigned
404	0.43	Supervise Allied soldiers
457	0.58	Advise higher-ranked leaders from other US/foreign services
560	0.51	Assess the general political climate in other countries

APPENDIX J: DEVELOPING UNIT COHESION FACTOR

TASKS LOADING .40 OR MORE ON NCO FACTOR 3
(IN TASK ORDER)

Task #	NCO FACTOR 3 Loadings	TASK
187	0.40	Brief the unit on its strengths
193	0.40	Monitor remedial PT
197	0.46	Promote a unit theme which states desired goals
198	0.44	Read inspirational history to troops at formation
199	0.42	Prepare written motivational materials
203	0.42	Hold group planning sessions with subordinates
204	0.41	Hold group problem-solving sessions with subordinates
206	0.50	Position unit facilities together (e.g., barracks, orderly room, etc.)
207	0.46	Promote the concept of cohort units
208	0.57	Reward the unit
210	0.52	Encourage the unit to critique its own performance
211	0.45	Ask subordinate leaders what should be trained
212	0.54	Obtain subordinate input to clarify unit goals
215	0.51	Upgrade informal leaders to legitimate leader positions
216	0.51	Encourage informal leaders to help others obtain unit objectives
218	0.42	Spend free time with people in the unit
219	0.41	Act as "father figure" to subordinates
221	0.42	Act as a buffer between enlisted and officers
222	0.48	Require attendance at military ceremonies (e.g., parades, award ceremonies)
224	0.48	Conduct memorial services for unit's dead
225	0.50	Visit troops in stockade
226	0.62	Assess the climate of the unit
227	0.62	Set unit climate
228	0.62	Monitor unit cohesion
229	0.50	Identify sources of discontent
230	0.42	Dispel rumors
231	0.44	Talk to subordinates about causes for low morale in the unit
232	0.41	Resolve conflicts among the troops
233	0.53	Establish procedures for reception/integration of newcomers
234	0.48	Inform newcomers of the priorities of the unit
235	0.57	Initiate hail-and-farewell
236	0.61	Encourage emphasis on unit symbols (e.g., emblems, customs, songs, motto)
237	0.59	Familiarize the soldier with the history of the unit
238	0.60	Promote shared values as a basis for acceptance by unit members
239	0.59	Promote shared unit standards as a basis for unit membership
	0.50	Instill belief that your unit is better than other units
241	0.53	Communicate the unit mission
242	0.56	Align individual and unit goals
243	0.43	Make the soldier feel needed by the unit

(continued)

Task NCO
FACTOR 3
Loadings TASK

244	0.47	Encourage soldiers to join military associations (e.g., AUSA, NCOA, branch associations)
245	0.61	Provide opportunities for the unit to compete against other units
246	0.56	Encourage organization of unit sports teams
247	0.56	Schedule time during the day for sports practice
248	0.46	Organize prayer breakfast
249	0.58	Arrange unit social functions (picnics, group outings)
250	0.55	Welcome the soldier's family into the unit
251	0.59	Arrange gatherings with troops and their families
252	0.62	Develop bonds among families in the unit
253	0.55	Encourage attendance at dining out
257	0.41	Issue certificates of achievement
267	0.44	Give inexpensive mementos
275	0.43	Initiate administrative actions (e.g., Article 15s)
295	0.41	Conduct "We Care Day" for dependents
297	0.45	Respond to concerns of soldiers' parents

APPENDIX K: COORDINATING WITH OTHER PEOPLE AND OTHER UNITS FACTOR

TASKS LOADING .40 OR MORE ON NCO FACTOR 4
(IN TASK ORDER)

TASK	NCO	
#	FACTOR 4	
Loadings		TASK
276	0.43	Administer Article 15s
277	0.45	Initiate court martial proceedings
278	0.50	Conduct court martial proceedings
282	0.45	Discipline civilian personnel
283	0.41	Recommend that supervisors award/discipline civilians
327	0.45	Requisition personnel assigned to the post for your unit
328	0.46	Select subordinates who are proven fighters/warriors/heroes
330	0.43	Select/hand-pick technical experts for the unit
334	0.59	Make duty assignments for officers
336	0.44	Assign enlisted personnel to work outside their MOS
337	0.49	Delegate life-threatening tasks
343	0.61	Hire civilian personnel
344	0.59	Develop job descriptions for civilian personnel
345	0.60	Allocate funds to units
346	0.56	Allocate funds within the unit
349	0.49	Write articles for military journals
352	0.50	Monitor/control PDL allocation
353	0.54	Update war plans for the region
362	0.41	Develop SOPs for your unit
364	0.43	Approve SOPs
365	0.41	Develop emergency preparedness and evacuation plans
372	0.40	Write technical reports
374	0.54	Write staff studies
375	0.57	Write soldiers' manuals
377	0.59	Write regulations
378	0.47	Update regulations
382	0.61	Approve requests for civilian personnel actions
385	0.41	Coordinate unit activities with other types of units
386	0.52	Integrate different types of units into the mission
387	0.45	Coordinate with other branches within the Army
388	0.51	Coordinate with other U.S. military services (e.g., Air Force, Navy)
389	0.62	Coordinate activities with military services of other countries
390	0.73	Coordinate supervision of Allied personnel with Allied military leader counterpart
391	0.49	Recognize Allied country military codes/customs
392	0.53	Develop contacts with organizations outside the Army
393	0.49	Develop network with others throughout the Army
394	0.44	Perform duties of safety officer
395	0.69	Perform duties of health and services liaison officer
396	0.67	Perform duties of community public relations liaison officer

(continued)

TASK NCO
FACTOR 4
Loadings TASK

397	0.72	Perform duties of liaison with NATO
398	0.74	Perform duties of liaison with government of the country to which you are assigned
399	0.74	Perform duties of a community commander (OCONUS)
400	0.49	Coordinate work with civilian specialists
401	0.70	Participate in contract negotiations with labor unions
402	0.45	Develop rapport with the civilian community
404	0.47	Supervise Allied soldiers
405	0.47	Supervise U.S. civilians
406	0.55	Supervise non-U.S. civilians overseas
410	0.41	Supervise personnel assigned to another unit
417	0.49	Supervise civilians who are retired military
421	0.48	Supervise soldiers stationed 60 or more miles away
422	0.51	Supervise a greater number of civilians than military
457	0.50	Provide input to inspectors from higher headquarters
493	0.52	Write OERS
494	0.48	Write civilian performance appraisals

APPENDIX L: GENERAL TRAINING, TEACHING, AND DEVELOPMENT FACTOR

TASKS LOADING .40 OR MORE ON NCO FACTOR 5 (IN TASK ORDER)

TASK NCO
FACTOR 5
Loadings TASK

1	0.44	Improve performance of subordinates
3	0.50	Develop good work habits in soldiers
4	0.44	Develop well-trained unit/element
5	0.47	Train soldiers in common soldier tasks
6	0.48	Train soldiers for the skills required to pass SQTs
7	0.49	Train soldiers to be technically and tactically proficient
8	0.43	Train soldiers for front-line combat
9	0.44	Train soldiers to support others in combat
12	0.42	Train soldiers to maintain equipment
13	0.52	Train soldiers to check their own work
14	0.57	Train soldiers to recognize ethical dimensions of their decisions and behaviors
15	0.52	Crosstrain soldiers
16	0.47	Train soldiers to be instructors
17	0.41	Train soldiers to work with organized labor unions
18	0.60	Train soldiers to handle stress
19	0.56	Train soldiers to do their jobs without supervision
20	0.52	Train soldiers to meet time requirements
21	0.45	Train soldiers in marketable civilian skills
22	0.57	Teach soldiers written communication
23	0.60	Teach soldiers oral communication
24	0.58	Teach soldiers personal discipline
25	0.57	Teach soldiers about wills and insurance
26	0.60	Teach soldiers interpersonal skills
27	0.62	Teach soldiers problem solving
28	0.61	Teach soldiers general decision-making strategies
29	0.51	Teach soldiers tactics
30	0.56	Teach soldiers about the current world situation
31	0.58	Teach soldiers about their rights as veterans
32	0.52	Teach soldiers about legal rights of civilian employees
33	0.52	Teach enlisted soldiers proper wearing of the Army uniform
34	0.45	Teach officers proper wearing of the Army uniform
35	0.52	Teach enlisted soldiers basic military skills
36	0.66	Teach officers basic military skills
37	0.47	Teach enlisted soldiers to do their jobs
38	0.42	Teach officers to do their jobs
39	0.50	Prepare individuals to appear before review boards
40	0.57	Train soldiers in leadership
41	0.53	Delegate decision-making to subordinates

(continued)

TASK NCO
FACTOR 5
Loadings TASK

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- | | | |
|----|------|---|
| 42 | 0.53 | Delegate authority to the lowest appropriate level |
| 43 | 0.54 | Train subordinates to take initiative |
| 44 | 0.56 | Develop counseling skills of subordinate leaders |
| 45 | 0.66 | Advise superiors on leadership issues |
| 46 | 0.55 | Advise subordinate leaders on ways to resolve ethical conflicts |
| 47 | 0.55 | Increase leadership responsibilities of soldiers returning from leadership training courses |
| 48 | 0.52 | Rotate subordinates' assignments in order to give them varied experiences |
| 49 | 0.52 | Provide opportunities for subordinates to lead in your place in garrison |
| 50 | 0.66 | Provide opportunities for subordinates to lead in your place in the field |
| 51 | 0.50 | Support decisions of subordinate leaders |
| 52 | 0.51 | Allow subordinate leaders to learn from their mistakes |
| 53 | 0.48 | Teach leaders how to inspect |
| 54 | 0.52 | Establish leader-development policies |
| 55 | 0.53 | Implement leader-development policies |
| 56 | 0.50 | Identify potential leaders |
| 57 | 0.43 | Recommend military training |
| 58 | 0.47 | Recommend civilian education |
| 59 | 0.47 | Provide soldiers the opportunity to receive formal training |
| 60 | 0.48 | Provide time for subordinates to participate in self-development programs |
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• APPENDIX M: MONITORING HEALTH, WELFARE, AND SAFETY FACTOR

TASKS LOADING .40 OR MORE ON NCO FACTOR 9
(IN TASK ORDER)

TASK NCO
FACTOR 9
Loadings TASK

465	0.44	Monitor safety practices in subordinate leaders' units
466	0.46	Monitor maintenance in subordinate leaders' units
467	0.45	Monitor quarters/barracks in subordinate leader's unit
476	0.43	Conduct health and welfare inspections
478	0.40	Administer drug abuse screening procedures
479	0.43	Determine whether a unit drug problem exists

APPENDIX N: ESTABLISHING THE DIRECTION OF YOUR UNIT/ELEMENT FACTOR

TASKS LOADING .60 OR MORE ON NCO FACTOR 10
(IN TASK ORDER)

TASK NCO
FACTOR 10 TASK
Loadings

523	0.50	Lead the unit/element without much direct supervision
524	0.41	Establish the mission for the subordinate unit
525	0.54	Communicate mission purpose
526	0.61	Establish short-term unit/element objectives
527	0.61	Establish long-term unit/element goals
528	0.61	Establish standards for your unit/element
529	0.61	Clarify standards for your unit/element
530	0.55	Enforce standards for your unit/element
531	0.58	Identify alternative courses of action
532	0.58	Determine how to accomplish the mission according to doctrine
533	0.59	Determine the critical tasks of the overall mission
534	0.55	Determine task milestones
535	0.52	Ensure readiness of your unit/element